THE PLANNING OF AGRICULTURE

By

VISCOUNT ASTOR

AND

KEITH A. H. MURRAY

WITH A FOREWORD BY

SIR ARTHUR SALTER

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FOREWORD

AGRICULTURE is the occupation of two-thirds of mankind, but of little more than one-twentieth of the inhabitants of this island.

This astonishing disparity must be the approach to any consideration of British agriculture or agricultural policy. True, it may suggest opposite conclusions to different people. Some will say that it shows clearly that there must be scope for a greatly increased settlement on the land. Others will be more impressed by the argument, powerfully urged in this book, that a policy of expansion at the expense of the consumer must in such a country always be precarious. We are a great industrial and exporting nation, to whose prosperity free imports of cheap food have greatly contributed. And the extent to which we have become industrialized dominates public psychology and the balance of political forces. We are an industrially minded people, and we have industrially minded Parliaments. The consequence is that agriculture encounters a different attitude of mind on the part of the general public and of our rulers from that which is to be found in any other great country. Even in the most advanced industrial countries, such as the United States, Germany, or France, the agricultural vote is a powerful, and often a decisive, influence. In all these three countries it has been an important factor in the general political and economic evolution of recent years. In striking contrast is the general indifference of our own attitude. It is an indifference which expresses itself in two different ways. There are long periods of sheer neglect. Then, when a desperate situation compels action, the same general ignorance and lack of interest prevent the measures proposed from being examined, as they should be, carefully, critically, and in relation to the general economic policy and economic position of the country.

We alternate between periods of neglect or inaction and periods of hasty and inadequately considered activity. We are now in one of the second of these periods. It is one of great danger, especially since the natural and ultimately

inevitable reactions of the new agricultural policies upon the dominant industrial interests of the country are for the time latent and disguised by the temporary and abnormal depression of agricultural prices throughout the world. There is a very serious risk—above all to British agriculture—in meeting temporary troubles by permanent measures. These may be light-heartedly accepted by the general public while they serve to counteract a temporary surplus of production and an abnormal fall of prices. But later, when conditions have changed, they may aggravate a tendency of prices to rise unduly. There may then be a strong reaction from an industrial and urban-minded people which will again throw British agriculture into confusion and distress.

At such a period there is an especial need for a critical, careful, and objective examination of the situation and of the principles and consequences involved in the new policies which are now being hastily devised and applied; an examination based equally upon expert knowledge of agriculture and (what is too rarely combined with it) a vision which extends beyond agriculture itself and views it in the perspective of the general economic position and policy of the country. This is the service which has been rendered by the authors of this book.

Agriculture occupies a special position in relation to the general world depression. The greater part of its trouble is due to the depression itself and to the same general causes, to everything which has contributed to the dislocation of supply and demand and to the fall in prices.

But in addition it has special characteristics of its own which have rendered the consequences of the depression more serious and adaptations to it more difficult. The industry whose factory is the land cannot quickly shut down a part of its plant as other industries do in response to a deficiency in demand expressed in unprofitable prices. On the contrary, as this book points out, the first, and only immediately practicable, response to a fall of prices threatening bankruptcy of a farmer, with fixed overheads and untransferable and uninsured labour, is to strive desperately to produce and sell more. Moreover, agriculture has recent troubles of its own that are independent of the general depression. Mechaniza-

tion in the great exporting countries has begun to have results of the first importance in the production of grain; and while the human demand for grain is inelastic, horse-consumption has been diminishing as petrol has become the motive power of transport. Even, therefore, if there had never been a general economic depression or financial crisis at all, there would probably have been at about this period a serious fall in grain prices. As it is, in agriculture, two depressions have coincided. Meantime the exceptional impoverishment of the agriculturist, arising from this double origin, has aggravated the industrial depression by depriving a large section of industry's customers of their purchasing power and the financial crisis by rendering the agricultural debtor insolvent.

In this confused and complicated situation the task of *finding remedies for both the immediate and the more* permanent troubles is obviously one of great difficulty. This book makes tentative suggestions, but it attempts no dogmatic and comprehensive programme. Its great value is that it examines fully the different aspects of alternative solutions and insists strongly on the importance of not confusing the temporary with the permanent problem. There are strong reasons for concentrating first upon the difficulties of the moment and taking emergency measures of a kind that can be terminated when the emergency ends. A complete transformation of our agricultural system can surely not be wisely undertaken except after a long and deliberate examination of the whole position, which is impossible in the middle of the present crisis. We cannot assume that we shall always be more anxious to pay more than we need for our most essential foodstuffs. And above all we cannot yet assume that the general increase in economic nationalism, as opposed to world trade, which has accompanied the present depression, represents not a temporary phase but a permanent change in world policy.

In these circumstances I think that the authors of this book were wise in not dogmatizing as to the permanent agricultural policy of the country and in describing rather the factors which will need to be taken into account in developing it.

I will not try, in these few pages, to summarize their

conclusions, but will merely add a few notes on some points that seem to me of especial importance.

In the first place, as this book argues conclusively, the greatest of all benefits to agriculture would come, not from specific agricultural policy, but from a removal of the main causes of the general depression, and in particular from a concerted financial and economic policy directed first to raising the general level of prices and then maintaining a reasonable stability.

This is not to say, however, that no special measures are necessary in the immediate agricultural crisis. The phenomenal fall of prices has threatened with ruin those who were, before the depression, able to maintain themselves in free competition with the world without the protection of tariffs or the aid of subsidies. By any criterion, production of the kind which is self-supporting under normal conditions is a source of permanent wealth to the country, and it would be a national disaster if abnormal conditions were allowed to deprive us of it. For the immediate crisis therefore I think that any measures needed to avert this disaster (whether in the form of tariffs, quotas, prohibitions, or subsidy) would be justifiable even from the point of view of the free-trader. It is a very different thing, however, to give assistance in a form designed to be permanent and to maintain the necessities of life for all time above those at which the world can supply us.

In any case, even if permanent State assistance is to be given, it is clearly better that it should encourage the production of those commodities for which we have a natural advantage. The main criterion is obvious. Food that is perishable, that suffers in quality by storage and long transport, has a natural advantage in being produced near its market. Fresh meat is better than chilled; new laid eggs are better than preserved, and so on. The natural field of development for Great Britain is clearly in live stock, dairying, poultry, fruit, flowers, and vegetables. In contrast, wheat and sugar, which are more economically produced in other lands or climates, which are cheaply transported and stored without deterioration, which offer no scope for absorbing labour, which need especially to be made available at the most advantageous prices for the poorest classes of consumer, are the least suit-

able for expansion here at the consumer's cost. The choice of exactly these two commodities as the first to receive special help, at the consumers' expense, is a melancholy example of the folly of governments in response to pressure—and of the especial folly of industrial governments in regard to agriculture.

And if the agriculturist has, in present circumstances, a claim to State assistance, he has one claim that is surely a prior one, and that is to be secured of at least equal conditions of competition. At Ottawa he was deprived for three years of any hope of special favour in his competition in the Dominions. But even during this period must he suffer the competition of State-assisted dumping at prices below those prevailing in the producing country? Even if the treaty provided no safeguard against this, does not our prospective freedom of action at the end of the three years give us a bargaining position which would enable us to secure the removal of an obvious injustice? In one minor instance indeed (and I know no similar instance in the whole record of commercial policy) our own home government has enacted legislation which definitely penalizes the home producer in his own home market as compared with the external competitor. A British 'chilled' egg must be marked as such; an egg similarly treated in a Dominion or a foreign country is not required to be so marked and can be sold in London as 'new laid'.

Turning to measures of special assistance, the authors of this book point out with justice the special objections and dangers of quotas. There is one aspect of them which I should like especially to emphasize. Tariffs and quotas are alike in normally raising prices for the producer at the expense of the consumer. But there is an important difference. With tariffs, such part of the extra amount paid by the consumer as does not go to the home producer goes to the Treasury as customs revenue; with quotas, this part normally goes to an arbitrarily (and perhaps corruptly) chosen foreign producer or, still worse, to an importing intermediary. As the book points out, the natural effect of the meat quota is not even to help the foreign producer but to endow the importing firms. A public purchasing board, which would secure for the public the part of the extra price paid by the consumer which under

a tariff system comes to the Treasury in customs revenue, seems to me a necessary corollary of a permanent quota system. And even if the quota is only temporary, surely special arrangements should be made to require the importers to hand over to the Treasury those extra profits which obviously come from a State levy on the consuming public.

I will not attempt to discuss the large questions raised by the policy of the present Minister of Agriculture, which are fully examined in this book. An energetic and constructive Minister who comes into office at a period of grave crisis, and who finds himself handicapped by the follies of his predecessors as regards wheat and sugar and by the provisions of Ottawa, is entitled to every sympathy. But the dangers of constructing on a basis that is unlikely to be maintained permanently, under the influence of the special conditions of the moment, are obviously very great. And, in my view, this book renders an invaluable service in examining them fully and objectively.

ARTHUR SALTER.

INTRODUCTION

In February, 1932 Dr. Keith Murray and I published a book on an economic agricultural policy entitled *Land and Life*.[1] We showed why in the British Isles 'money spent on live stock, on milk production, on vegetables, on fruit, will not only give the British taxpayer or consumer an infinitely better return than money spent on wheat and sugar beet, but British agriculture as a national industry will derive greater benefit from such an expenditure than if the same sum were used to solve local difficulties (e.g. those of arable farmers in the Eastern counties)'.

Unfortunately many people had been for years wedded to the belief that wheat was the pivot of British agriculture, and the 'arable' farmer the most important food producer. They had not taken sufficient note of the changes in the world since 1815 when, with a small external trade and a population of only ten millions whose standard of living was low, we were self-supporting. Even since 1875 the development of the New World and of cheap sea transport has altered our whole economy. The Great War by its special requirements had also confused their outlook as to our peace-time needs.

If the wheat acreage must be raised to 1,800,000 acres, the arbitrary figure fixed by the 1932 Act, a subsidy is undoubtedly needed. Without this subsidy wheat cultivation might have dropped slightly, but it would not have vanished, for the following reasons.

Many farmers grow wheat because they make a direct or indirect profit on the straw, e.g. dairy farmers, potato growers, or those with a special market among training stables, strawberry growers, box-makers.

Then, too, some farmers in such districts as the Eastern Counties which are admirably suited for wheat have been able to grow the crop at a profit in competition with overseas producers even at recent low world prices and without subsidy.

Lastly, poultry keepers have made a profit on their eggs, using their wheat as a feed. Before the Wheat Act was passed

[1] Astor and Murray, *Land and Life*, Gollancz, 1932.

about 50 per cent. of British wheat was used for live-stock feeding and only about 22 per cent. found its way into the British loaf.

The wheat subsidy was intended for farmers who depended on selling their wheat and who could not grow it for less than 45s. a quarter. But it has not been possible to devise a water-tight scheme. As will have been seen from the foregoing criticisms, probably more than half the subsidy goes to farmers for whom it was not intended, i.e. who were already making a direct or indirect profit on their wheat—in other words, it represents an unnecessary expenditure of over £2 millions.

In *Land and Life* we also stressed the need for land settlement, small holdings, and allotments: the need for giving agriculture fresh capital, and for restricting imports mainly through tariff duties. We suggested that this assistance should be made conditional on farmers 'increasing their efficiency and reorganizing many of their methods of production and distribution' and that further aid (possibly some of the revenue derived from the tariff) might be given for research, education, marketing, &c.

Since *Land and Life* was published an increasing measure of authoritative and responsible support has been given to the live-stock policy therein advocated, it being realized that on this depended the prosperity of 80 per cent. of our farmers. However, because of the old free-trade contentions certain public men refused to give the usual form of protection to the major branches of British farming. Quotas instead of tariff duties were adopted. If quotas prove to be the right instrument for protecting food production in normal times (they have obvious temporary advantages for dealing with depreciated currencies and subsidized exports) it will be hazard that has given us the right policy. Quotas were not originally adopted on merit. They have been consistently turned down by all conferences of experts. It is even rumoured that when our representatives went to Ottawa they had been advised against this device. The Dominions had also favoured a preferential tariff.

Our whole agricultural policy since the War has been haphazard, and consequently expensive. In 1924 we started the sugar-beet industry and have artificially stimulated it

ever since, although there has been a world glut of sugar and although our conditions are not generally suited to this root (the yield of beet sugar per acre in Britain is 20 per cent. less than in France, 33 per cent. less than in Germany, 34 per. cent. less than in Czechoslovakia). Improvements in sugar cane have also made it practically impossible for British beet sugar to compete with it. Consequently in 1930–1 we paid £11 millions for home-grown sugar, the equivalent of which could have been imported for £4,703,000, or to put it another way, every pound's worth of English beet sugar bought by the consumer represented 12*s.* of subsidy and only 8*s.* of sugar.[1] Sugar represents less than 1 per cent. of our farm produce, and in any case can only be grown in very few districts, districts where other crops can be grown at less cost to the public, and where other crops were produced before the beet experiment was begun. Its production naturally gives some employment, but only at a high cost. It cannot be proved that it has resulted in a net increase in employment.

Next, Parliament tried to treat grain-growing as a separate industry, or rather as three separate industries. We had not even learnt our lesson by the failure of the Corn Production Act of 1920 whose guarantee was hastily repealed when it was ascertained that the cost would total £20 millions.

In 1932 Parliament imposed duties on barley and oats, thereby prejudicing those who want cheap feeding stuffs for pigs, horses, poultry, &c.

In 1932 an agitation was initiated for a reduction of the beer duty. It was advocated as important to agriculture, though breweries spend only £4 millions on British barley and hops. They cannot use only British barley for technical reasons, having created a demand for a type of beer which requires imported grain from sunnier climates. If the brewers are able to use a larger proportion of home produce to the extent of a 10 per cent. increase in both barley and hops, British farmers will benefit to the extent of only £400,000.

[1] There would still be this high expenditure of the public's money if the alternative now under discussion of a duty on foreign sugar with a preference for Colonial imports and no corresponding excise duty is adopted. The consumer instead of the taxpayer would pay the subsidy.

If the Chancellor of the Exchequer was right in his forecast that the cost to the Treasury of reducing the beer duty would be £14 millions, it is obvious that for every £1 which the farmer receives the taxpayer must pay over £30. The reduction of the beer duty may have been expedient as a political move, but as an aid to agriculture it may prove even more extravagant than the Wheat Quota or sugar beet subsidy.

Naturally some farmers have benefited by all this outpouring of the public's money. It would be possible at a price to stimulate the production of pineapples in these isles and the vested interests thus created would derive benefit by the help given. They would resist also all subsequent efforts to withdraw the subsidy. But this would not mean that the public was getting value for its money or that agriculture as a whole was profiting by such expenditure.

In the autumn of 1932 and spring of 1933 the major sections of farmers, the graziers, breeders, dairy farmers, &c., found themselves in a precarious state. Had the money spent on assisting the less vital branches been given to them farming as a whole would undoubtedly have been healthier and better able to face the future.

Will the public be willing to put its hand still much deeper into its pocket? As Dr. Venn[1] has pointed out, the taxpayer has been unusually generous in the aid given to the farmer by relieving him of rates, subsidizing research, and education, &c., &c.

The recent Economic Conference has brought out the importance of re-establishing the prosperity of world agriculture. It has further made observers realize how perplexed even the ablest statesmen are about the future and the effects of the steps taken by them to help their respective countries.

Can we in Britain now have an expanding economic agriculture or may not our commitments unfortunately restrict us to helping many small sections of food producers at high cost?

Is Britain to look forward to a world where countries trade with each other, exchanging commodities which they are able to produce better or more cheaply because of natural advan-

[1] Presidential address to the Agricultural Economics Society at Cambridge, 1933.

tages, or greater skill? or are most countries to produce the maximum of their requirements even though neither Nature nor better organization favour them?

In Britain we used to have cheap cereals from the New World, cheap bacon from Europe, cheap sugar from the East Indies, cheap feeding stuffs for our live stock, enough cheap frozen or chilled meat for those who could not afford fresh meat. Yet at the same time our people's high standard of living gave our farmers a good market for perishable products of high quality and of good value such as fresh beef, milk, fruit, vegetables, poultry. These branches were specially suited to our climate and equable temperature. They grew and expanded during the past fifty years. Countries like Denmark and the Argentine, which had become prosperous by supplying our industrial consumers cheaply with the essentials of life, provided excellent markets for our exports and so helped our prosperity.

Is our whole trade policy to be reversed? If so, can we support a large population with a high standard of living? When times become normal will producers and consumers accept the 'control' which many of them are now clamouring for? or will the demand for decontrol become as irresistible as after the War?

If the present critical state of agriculture and the disastrous low level of prices are due to a general maladjustment of supply and demand, should the cure be a restriction of supply or an increase in purchasing power? Does output restriction necessarily raise the incomes of the agricultural community? Is marketing reorganization a sufficient remedy for low prices? Is control of market supply sufficient to control price or must one proceed farther and control production as well? Can the farmers of this country control the total supply of any one commodity? Is control of agricultural production in this country feasible or wise? Are the forms of organization for control in industry applicable to farming? If the organization and combination of producers is possible, how far can this be used for forcing up prices? How large a part for any success depends on State action, and how far can the State go in protecting the farmer? These are a few of the questions which must be examined before any settled agricultural

policy can be established. Neither Britain nor other nations will return to the *laissez-faire* of the Victorian era; a certain amount of central planning is inevitable. This makes it more than ever necessary that there should be the fullest discussion and disinterested examination of the various schemes for reorganization.

Agriculture as a producer of wealth, as an employer of labour, as a fine mode of life, as a provider of homes for many, as an industry which develops some of the finest qualities in those engaged in it, deserves substantial and reasoned support from Parliament and the public.

In this second book, *The Planning of Agriculture*, Dr. Keith Murray and I have tried to examine the steps taken since last year; and also some of the proposals for controlling agriculture and their possible effect on our national life.

We wish to acknowledge the benefit of advice and criticism from several friends; in particular, we are indebted to Miss Margaret Bryant for her help.

ASTOR.

July 1933.

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CHAPTER I

THE EXISTING ORGANIZATION

DURING the last decade or so, three new '*r*'s have appeared in everyday economic discussion—reconstruction, rationalization, and reorganization; they have been thrown like lifebuoys to the various industries that have shown signs of distress in the economic blizzard. Agriculture has not been overlooked, and to-day reorganization is being offered as a panacea for all the ills from which it is suffering.

To the urban dweller who is out of touch with actual farming conditions, the appointment of tribunals, committees, and the like, to investigate various agricultural problems and to make recommendations for reorganization, suggests that the farmer himself is inert and passive in the face of changing conditions. History shows that this opinion is far removed from fact.

Before entering on any discussion of agricultural reorganization it is well to recognize that the present organization has been reached after many changes and adaptations. Firstly, production methods have changed; the land has been redistributed from time to time; the farming population, both in numbers and in types, has altered; the part played by the State

[1] *Approximate Number of Important Units in Industrial Production in the United Kingdom,* 1924*

Industry	*Number of Units*	*Value of Output*	*Output per unit*
		£ million	£
Textiles	7,500	748	99,733
Iron and steel	9,900	702	70,909
Mines and quarries . . .	2,400	275	114,583
Paper and printing . . .	4,400	159	36,136
Farms in Great Britain (1925) .	481,900	274	569

* These figures should not be interpreted too literally, as the Census of Production, from which the figures are taken, does not include industrial units employing less than 10 persons. These small units, however, do not account for any considerable part of the total output, so that in principle the figures are significant. Also, only one return may be made by some producers with several units, while others may make separate returns for each unit under their control.

has increased. Secondly, the present large distributive organization has been evolved gradually to bridge the widening gap between producer and consumer.

THE LAND

It is true that agriculture, for very good reasons, has not adopted the large-scale organization that has characterized the development of industry during the last 150 years. The unit in farming is small; the gross output per unit is about £569 compared with several thousands of pounds in other productive industries;[1] farms are generally small in size, 80 per cent. of them being under 100 acres and two-thirds under 50 acres.

Nevertheless it is true that farming in Britain has developed along lines more closely parallel to urban industry than in any other European country. The distinction existing between a capitalist and a labourer class in farming is the exception in Europe, where the family farm is the rule. Even in the British Isles the farmer-labourer system is not universal. Ireland is a peasant country. English farming stands midway between the peasant system and the large-scale capitalist undertakings for the production of plantation crops, such as rubber, coffee, and sugar, in some of the newer overseas countries.

Great Britain is not, agriculturally, an undeveloped land; there is not so much wastage as is often supposed, at most about three-quarters of one per cent., and there is usually an economic reason for its lack of use. In fact, Great Britain as a whole has less waste land and woodland than any other country, even including Denmark and Belgium. There is no reason for thinking, as many people appear to do, that because land is under grass it is not being used to the best advantage. Grass can be as much a crop as any other plant, and should receive the same scientific attention. The great improvement made in the intensive use of pastures is as important as many other more spectacular developments.

British farming land is largely under grass of some description. Only 28·2 per cent. of agricultural land is arable, or only 19 per cent. if rotation grasses are not included as arable crops. About 39 per cent. is under permanent grass, and 33 per cent. in mountain and heath grazing.

[1] See footnote on previous page.

There are about thirty-five important crops grown on British farms. A journey through any part of the country during the summer will emphasize the number of permutations and combinations that can occur even within quite a small area.[1] .Add the possibilities of further combinations through the introduction of different types and classes of live stock. No two farms are alike. The balance between different enterprises on the same farm is a delicate mechanism with which it is inadvisable to tamper without intimate knowledge, most of which can only be obtained by experience on the spot.

The evolution of British farming systems has, in fact, always been accompanied by changes in the size of farm. In Tudor times the prosperity of the sheep industry resulted in the formation of large holdings; this was the period of the First Enclosures. The end of the sixteenth and the seventeenth centuries witnessed a reaction, as the extensive sheep industry waned and rural livelihood came once more to depend on the earlier systems of farming.

The expansion of corn-growing in the latter half of the eighteenth century brought yet another change. Levy[2] states that 'from 1760 to 1813, there was a one-sided extension of arable at the expense of all other branches of farming. And this change had a direct counterpart in a great change in the customary unit of agricultural management. . . . Precisely at the time when the rise in corn prices began, mention begins to be made of the "engrossing" of farms.' This movement continued until the beginning of the nineteenth century. The development of British farming along lines different from those in other countries is to be sought in this period of profitable corn-growing. The change involved the elimination in many districts of the small farmer, the yeoman, and the land-holding labourer; it produced two distinct classes, the capitalist farmer and the agricultural labourer.

Towards the middle of the nineteenth century the market for corn had weakened; cheap grain and rising purchasing

[1] See Hall, A. D., *A Pilgrimage of British Farming*; and Russell, E. J., *The Farm and the Nation*, chapter iv, 1933.

[2] Levy, Hermann, *Large and Small Holdings*, Cambridge University Press, 1911.

power were enabling the British consumer to buy more expensive foods; the demand for live-stock products, fruits, vegetables, and so forth was growing. The British farmer, unable to compete with the foreigner in grain production, adapted himself to the marked change in demand and turned his attention to the production of meat and dairy products in which overseas competition did not become acute until the beginning of the present century.

The new types of farming were in general suited to a smaller type of holding. With the remarkable transformation of agricultural production since about 1880, the unit of holding has undergone very great changes. As the market varies, so does the size and type of farm. Changes may be slow, but they are continually taking place. Even in the last twenty years they have been considerable.

TABLE I

Distribution by Size of Holdings in Great Britain, 1913 and 1931

Acreage	*1913*		*1931*		*Change*
	number	per cent.	number	per cent.	number
Above 1, not exceeding 5	110,720	21·6	87,982	18·8	−22,738
„ 5, „ 50	233,340	45·5	213,430	45·6	−19,910
„ 50, „ 100	69,334	13·5	72,195	15·4	+ 2,861
„ 100, „ 150	37,798	7·4	37,925	8·1	+ 127
„ 150, „ 300	44,739	8·7	41,724	8·9	− 3,015
„ 300	17,134	3·3	14,535	3·2	− 2,599
Total	513,065	100·0	467,791	100·0	−45,274

It is often asserted that the relative inflexibility of the farming unit is due to the system of land tenure. But examples can be given all over Great Britain and at all times of enterprising farmers who have been able to acquire more land as they needed it. Where an increase of acreage was economically justified, they have been willing to pay for the land or for its use; their initiative has not been killed by any inflexibility in the systems of tenure.

Mr. Orwin's 'Progress in English Farming Systems' series provides a few examples of large enterprises built up by purchase of other farms.

'Mr. George Baylis acquired the use of 12,140 acres, many of them adjacent to the original holdings, in a period of forty-three years. Mr. Hosier built up his business from various small units. In the year 1910, in partnership with his brother, he took 600 acres at West Woodhay. One year later, the brothers took the adjoining farm of 300 acres, and in 1912 they added two more in the next parish of Inkpen, one of 300 acres and the other of 500 acres.'[1]

In 1919 and 1920 he went out of all his farms, and in 1920 purchased 1,000 acres at Wexcombe on the Downs; in 1925 'an adjoining farm of some 1,500 acres came into the market and Mr. Hosier bought it'. Since then another neighbouring block of land of some 700 acres has been taken in. Mr. A. H. Brown provides yet another example.[1] Entering a 121-acre farm in 1913, he acquired other farms in 1918, 1922, and 1924, making 468 acres in all. 'Taking the enterprise as a whole, a good deal has been done to weld the farms together and to rearrange the land for cropping in larger blocks.'

These are merely three contemporary instances showing that redistribution of the land or acquisition of economic units of management can often be achieved where and when it is justified. Only recently a farming unit of over 10,000 acres was acquired with an option on about 30,000 neighbouring acres.

The optimum size of a farming unit depends so much on the factor of management, and that factor is so personal, variable, and incapable of measurement that it is impossible to decide on the economic size of unit except by empirical methods.

The chief problem of land distribution in the majority of cases probably lies within the farm itself and not in the extension or contraction of the farm boundaries. Buildings and roadways are more permanent than fences, and the immobility of that part of the farm's equipment often presents a serious handicap to any change in the system of farming. Thus a change-over to dairying may be prevented by the lack of barns and cowsheds, while valuable cropping soil may be lost to cultivation through the lack of good roads.

[1] Orwin, C. S., *A Specialist in Arable Farming*, pp. 10–12; *A Pioneer of Progress in Farm Management*, pp. 8–10; *High Farming*, p. 15. Clarendon Press, 1930 and 1931.

The size and shape of fields deserves greater attention than has been paid to it. A field suited to hand implements is not ideal for large horse-drawn or tractor machinery, yet many arable fields are maintained in their century-old shape and size. The same criticism does not apply with equal force to grassland farming, where small fields with ample shelter may be desirable. The following table[1] emphasizes the effect of size of field on the cost of labour and consequently on profits in the cultivation of sugar beet. A difference in costs of £1 14*s*. per acre between the smallest and largest fields is very considerable, and may represent a very large fraction of

TABLE II

Size of Field and Labour Cost per Acre (Sugar Beet)

Size of field acres	*Labour cost per acre*	
	£	*s*.
5 or less	11	13
6–10	11	8
11–15	10	2
over 15	9	19

the total production cost. The figures are for sugar beet, but similar economies in labour costs operate for other crops on larger fields. Nor was this difference made up by greater yields on the smaller fields; it may, therefore, be reckoned as net loss.

With farm wages at twice their pre-War level and prices for farm produce the same as in pre-War times, labour cost becomes the focus of farm-management problems. Now the rearrangement of the farm, whether of buildings or fields, with a view to economy of labour costs money. It is a question of the provision of capital and, therefore, of confidence. Money may be cheap and interest rates low, but so long as there is uncertainty with regard to the future of farming, no one is likely to sink capital in the necessary improvements. Given the assurance of more prosperous times, investment in permanent improvements may start again.

[1] Data given by Carslaw, R. McG., *Yorkshire Agricultural Society's Journal*, 1930.

FARMING POPULATION

At the present time there are just under 1⅓ million persons employed in farming. This is a reduction of about 650,000 in fifty years. But as striking as the reduction in the total numbers is the change in the constitution of the agricultural population; there has been an increase in the numbers of persons farming on their own account and a marked decrease in the number of paid farm workers.

The following figures for England and Wales show the trend clearly:

TABLE III

Number of Farmers and Farm-Workers in England and Wales

	1871	*1901*	*1921**
Number of farmers . . .	269,200	248,300	295,900
Number of market-gardeners .	54,200	130,000	127,000
Number of farm workers . .	1,028,200	800,000	734,000
Total	1,351,600	1,178,300	1,156,900

* To a certain extent the 1921 figures are not entirely satisfactory as the are affected by abnormal War conditions.

Between 1871 and 1901 the number of farmers declined, but after that it rose and in twenty years increased by almost 48,000; the number of market gardeners rose by 73,000. The number of agricultural labourers fell by 293,600. The 1931 Census will probably indicate a continuation of the tendency for the number of persons working on their own account to increase and for the number of paid employees to decline.

The following example from Oxfordshire shows the considerable change that can take place in so short a time as six years; family labour increased by 14 per cent. while hired labour decreased 23 per cent.

Family labour, not remunerated by cash payments in the form of agricultural wages, reduces costs, and allows production to continue long after it has become unprofitable to the farmer who uses paid labour, especially where the level of wages is influenced by the high rate of industrial wages.

TABLE IV

*Family and Paid Labour on 148 Farms in South Oxfordshire, 1923 and 1929**

	1923		1929	
	Number of workers	*Per cent.*	*Number of workers*	*Per cent.*
Family labour . .	150	18·4	171	25·1
Paid labour . .	666	81·6	511	74·9
Total . .	816	100·0	682	100·0

* Dixey, R. N., *et al.*, *The Farmer's Business*, p. 22. Clarendon Press, 1931.

Prices which consistently fall below the cost of production will drive the employer of paid labour to bankruptcy, but for a time they stimulate the family farmer to increased production; in an attempt to make up through increased sales for the lowness of prices he and his family work harder and for longer hours. They have no fixed 51-hour week. The family farmer is able to weather a period of depression.

There is a strong trend, not merely in the last ten years, towards the 'family' farm and away from the large farm with the farmer acting as supervisor over a large paid labour force. When it is remembered that the family farm is the basis of most of the world's agriculture it is not surprising to find that British farming tends to move in the same direction, especially in view of the relatively high cost of labour and the large part which labour costs play in agricultural operations. The approximate number of paid workers to every 100 farmers in different countries which compete on the British market illustrates this point.

TABLE V

*Number of Agricultural Employees per 100 Employers in Different Countries**

Country	*Employees per 100 employers*
Australia	125
New Zealand	106
Denmark	91
United States	42
Canada	24
Great Britain	227

* Calculated from *The Statistical Year Book of the International Institute of Agriculture*, 1930–1.

MANAGEMENT AND CONTROL

Garratt adopts the following classification of farmers in England and Wales, and gives a rough approximation of each type, the numbers of each, together with the labour employed and the acreage covered.[1] The following figures refer to England and Wales only, and summarize his estimate.

TABLE VI

Classification of Farmers in England and Wales

Type	*Number of farmers*	*Labour employed*		*Area in acres*
		Family	*Paid*	
Part-time farmers . .	100,000	—	—	1,000,000
Family farmers . .	120,000	40,000	50,000	4,000,000
'Dirty boot' farmers . .	80,000	30,000	200,000	9,000,000
'Clean boot' farmers . .	30–35,000	5,000	300,000	11,000,000
Total . . .	330–335,000	75,000	550,000	25,000,000

So far as acreage—and probably market output—are concerned, the large or 'clean boot' farmers are of greatest importance, but numerically the part-time and family farmers are much the stronger. On the basis of these figures the various groups may be taken as falling into size-groups of 1–10 acres, 10–50 acres, 50–150 acres, 150 acres and over.[2] It is the 'dirty boot' farmer that has increased in number in recent years.

From the economic, if not the social, point of view the fact that the farmers of the country are not a homogeneous group is of great importance. There are extraordinary variations in the standard of living. A farmer's standard may be inferior to the industrial worker's or it may equal the well-to-do industrialist's. The reaction of the various types to adverse conditions may be vastly different. The large farmer with paid labourers does not offer the same resistance to adverse economic forces as the 'dirty boot' farmer or the smallholder. The latter pulls in his belt and works harder in difficult times, while the former is more unwilling to lower his standard of living, and, saddled with more rigid costs, may go bankrupt. If all farmers in all countries reacted to low

[1] Garratt, G. T., *The Organization of Farming*. Heffer & Sons, Cambridge, 1930.

[2] See p. 4.

prices by bankruptcy, i.e. by going out of production, low prices would soon be their own cure. Decreased production would lead almost immediately to higher prices.

A further factor inducing different reactions to economic conditions is the pressure of producers only partly dependent on farming: part-time allotment or small-holders, live-stock or corn dealers, auctioneers, commission men, and finally the professional and business men who farm as a hobby and are content to produce at a loss. The home farm of the landlord on many estates has been run as a hobby without too close scrutiny of accounts. The question of losses does not arise until the situation is very acute on the estate generally. It is impossible to estimate the precise amount of farming that is carried on on a non-economic basis either by well-to-do men or by persons whose main occupation lies elsewhere, but it is not negligible. This group provides strong resistance to the natural working of economic factors and competitive conditions, and their farming operations, often showing apparently admirable results, have helped to mask the real economic position of farming.

In spite of dual partnership between landlord and tenant in the provision of capital, the actual control of British agricultural production now lies almost entirely in the hands of the farmers themselves, just as much among tenant farmers as owner farmers. The term 'agricultural partnership' is now practically an anachronism. Legislation, loss of capital, and other factors have relegated the landlord to the position of a receiver of rent and interest on his capital. His power of control has been negligible for the last fifty years.

During the greater part of the eighteenth century there was a true partnership. The landlord took an active interest in farming, and was responsible for many of the improvements which made British farming the admiration of Europe. Capital was spent by him in drainage, land reclamation, farm buildings, houses, and cottages; he provided the pure-bred live stock, usually bred on his farm, which led to the general improvement in farm stock.

During the two periods of depression, 1820–50 and 1873–96, the landlord was the buffer between low prices and the tenant farmer. Rent was the share of the earnings that contracted

to meet the waning returns; the landlord was able and willing to carry the burden. Farm relief in the nineteenth century was supplied by the land-owning class. But the depression following the 'Golden Age' of British farming was long and severe, and by the time that the tide turned in the 'nineties the landlords' resources were depleted. Low returns or no returns on the permanent equipment of the farm and more attractive investment in urban or overseas concerns outweighed the 'psychic return' of land-owning. More effective still in reducing the landlord's share in the 'partnership' was the trend of legislation. The Agricultural Holdings Act of 1875 and subsequent Acts gave the tenant increasing control. This was made inevitable by the changes in farming practice. The tenant had to be assured that he would reap the benefits of long-time improvements due to the use of mineral fertilizers, the consumption by live stock on the land of purchased feeding-stuffs, the planting and propagation of fruit trees, and so forth. As the landlord's powers were restricted, his active interest slackened. The responsibility for the organization and development of farming to-day rests virtually with the tenant farmer, who now has security of tenure, the right to compensation for improvement, and the right to submit his rent to arbitration.

Nevertheless landlords still have big financial interests, and they fill a position of extraordinary responsibility in the countryside. In England and Wales in 1925 the value of the landlords' capital was £815 millions. This included the value of the land itself, together with the permanent equipment, farmhouse, cottages, and buildings. The tenants' capital, live and dead stock, tenant right valuation, and other working capital, amounted to about £365 millions, slightly less than half that of the permanent capital.

While the greatest part of the capital in agriculture is supplied by the landlord and the farmer, recognition must be made of the capital provided by dealers and by banks. The former are chiefly concerned with short-term capital, the latter with both short- and long-term investment. There are no estimates of its amount, but it must be very great in a time of agricultural depression. At the present time, the Agricultural Mortgage Corporation alone has about £10½ millions

invested in farming, mostly in long-term loans. The mortgage method of financing farming has never in this country reached the proportions attained in, say, the United States. To-day the American farm mortgage debt amounts to the vast sum of about $9,000 millions, but even in more normal times the mortgage indebtedness is large, since it is from this source that the American farmer obtains a great part of his capital.

The gross rental of agricultural land in England and Wales was estimated in 1927 to be about £42,350,000.[1] This represents about 5 per cent. of its capital value. Out of this income must be defrayed the cost of repairs and other outgoings. In recent years the net return on capital invested in agriculture has probably not been equal to the income derived from other long-term investments. Outgoings before the War amounted to about 35 per cent. of the gross rental; for the post-War years they have been in many cases between 50 and 60 per cent.[2] The net return in recent years on the landlord's capital at current valuation has been estimated at only about 2–2½ per cent. During the years 1920–9 the average return on government securities was about 4½ per cent.[3]

Tithes, land tax, and other public burdens swallow up some 10 per cent. of the gross rental. Income tax and surtax take a further portion of current income, while death duties curtail capital. It has been estimated that about £2,700,000 is taken annually in estate duties paid on agricultural land; this levy, in the impoverished state of farming, can only be obtained by forced sale, mortgage, or a serious diminution of working capital. Forced sale of farms has far more serious and far-reaching effect than the sale of stocks or shares. The livelihood, not only of the owner, but of the tenant farmers, farm workers, and estate hands is affected. The transference of industrial shares has few such repercussions. Moreover, landed estates are often purchased by men who, though they bring new money to the countryside, lack the tradition and the accumulated experience which has justified the landlord system in England in the past.

[1] *The Agricultural Output of England and Wales*, chapter x. Cmd. 2815. 1927. The gross income derived from the ownership of land returned under Schedule A of the Income Tax for the year 1924–5 was £42 millions, which, though not quite comparable, bears out this figure.

[2] See p. 148. [3] Estimated from the price of 2½ per cent. Consols.

FARM LABOUR

Unlike the urban worker, the farm labourer has achieved little effective solidarity in any central organization or union. Wages increased during the last century, but not to the same extent as in urban industry. Since 1917 attempts have been made to remedy the weak bargaining position of the agricultural worker. The Agricultural Wages Board from 1917 to 1921 achieved a marked rise in wages, but its supersession by the less powerful Conciliation Committees from 1922 to 1924 was followed by a retrogression in wages. In 1925 the present Wages Board system was inaugurated, and has resulted in a fairly rigid level of wages. In Scotland, where there are no wages boards, wage rates have been consistently higher than in England, but there appear to be economic reasons for this fact, mainly, perhaps, the greater net output per man. The matter does not depend merely on bargaining power.

Probably the limit has been reached in the use of bargaining power in obtaining higher wages or in resisting the lowering of wages. The solution rests in increasing the net output per worker, either by reduced costs and a further reduction in the number of agricultural workers or by the artificial raising of agricultural prices. With revived prosperity it would be impossible to maintain indefinitely the number of agricultural workers at its present level if the level of real wages were kept much below that of urban industrial wages.

It is, of course, possible that large-scale farming may be developed and may form the counterpart of the large factory. This seems likely to happen in certain parts of the country, in some of the cereal areas of East and South England and in certain milk-producing areas of the South. The number of workers required would in that case diminish as more extensive methods and more machinery are used. In one 1,100-acre farm given over to mechanized cereal production, employment was reduced from 40 men under the old system to 4 under the new. In mechanized farming the output per man is high, and may be able to provide the wages set by the competition of industrial wages. 'Industrialized' farming would be expected to pay wages, provide against unemployment,

and give a standard of living comparable with that of urban workers.

If competition from the overseas family farmer with no wages bill still continues, and if the areas and types of farming which can be developed on the above lines are limited, is it not inevitable that the farm labourer will disappear if the present wage rates are maintained? Yet no one would willingly see the farm worker's standard of life lowered further in relation to the urban worker's.

The following table shows how wage rates have remained relatively stable while prices of farm produce have fallen; the purchasing power of farm products in terms of labour has declined 44 per cent. as compared with pre-War.

A substantial measure of protection might ease the weight of the competition, but can this remedy endure for long? If not, then it looks as if the family farmer and the small farmer with little or no hired labour will increase still farther. In that case, it might not be so difficult for the small-holding to hold its own, and the establishment of more small farms might absorb a proportion of the surplus agricultural labour.

One of the main objections advanced against the extension of small-holdings is that the standard of living of the small-holder's family is liable to be definitely a low one, and the money return lower than the present agricultural wage rates. But the life offers independence and, under favourable circumstances, opportunities for advancement.

The problem of low wages is not the only one confronting the agricultural labourer. Unemployment is more serious each season, and there is real distress in many villages.

If farming is to be industrialized, the agricultural worker must be placed on the same basis as other workers. The reason why agricultural labour was not included originally in the unemployment insurance scheme was that there was little rural unemployment before the War and the payment of the weekly premium would, under the circumstances, have been an unjustifiable tax on wages. But the extension of large mechanized farms would completely alter the situation. As things now are, either provision must be made for unemployment or more facilities must be provided for farm labourers to set up for themselves.

TABLE VII

Agricultural Wages and Farm Prices, in England and Wales, 1918–24

Period	*Average weekly wages*				*Index numbers*			*Purchasing power of farm products in terms of wages*	
	(1)*		(2)†		*Wages* (1)	*Wages* (2)	*Farm prices*	(1)	(2)
	s.	*d.*	*s.*	*d.*					
1914 . . .	18	0	18	0	100	100	100‡	100	100
First Wages Board: .									
July 1918–May 1919	30	6	34	3	169	190	—	—	—
May 1919–Apr. 1920	37	10½	41	5	210	230	271	129	118
Apr. 1920–Aug. 1920	43	0½	51	4	239	285	286	120	100
Aug. 1920–Aug. 1921	46	10½	56	0	260	311	255	98	82
Sept. 1921 . .	42	3	51	4	235	285	216	92	76
Conciliation Committee Period:									
1922 . . .	31	3	37	5	174	208	169	97	81
1923 . . .	28	0	32	5	156	180	157	101	87
1924 . . .	28	0	32	5	156	180	161	103	89
Agricultural Wages Board:									
1924 December .	28	0§	32	9	156	182	163‖	104	90
1925 ,, .	31	5	37	0	175	206	154	88	75
1926 ,, .	31	8	37	6	176	208	146	83	70
1927 ,, .	31	8	37	3	176	207	138	78	67
1928 ,, .	31	7½	37	0	176	206	140	80	68
1929 ,, .	31	8	37	9	176	210	143	81	68
1930 ,, .	31	7½	38	0	176	211	126	72	60
1931 ,, .	31	6	37	9	175	210	117	67	56

* *The Agricultural Output of England and Wales*, 1925, Cmd. 2815, 1927; (1) Minimum weekly wages.

† Calculated from the N.F.U. Year Book; (2) Approximate wages for 52 hours of work per week (to correspond with 1914). ‡ 1911–13.

§ Orwin and Felton, 'A Century of Wages and Earnings in Agriculture', *Journal of the Royal Agricultural Society*, vol. 92, 1931. ‖ December.

The main factor in rural depopulation has been the low incomes derived from the farming industry. Contributory causes have been bad housing accommodation in the villages and the absence of many of the amenities of town life. In the last few years, however, the discomforts and the dullness of existence in many villages have been reduced. County councils have built a certain number of houses with proper accommodation for the family, separate sleeping-rooms for boys and girls,

and decent provision for cooking and washing. The labourer's child who wins a scholarship has means of getting to the secondary school. Electricity is coming to the cottage. Women's Institutes and other organizations have brought new interests into the home. The village itself is no longer isolated, for country buses penetrate everywhere, and bring the cinema and other amusements of the town within easy reach. Last of all, wireless renders an immense service on winter evenings. The countryside retains its special advantages, and has now acquired many of the advantages formerly reserved to the town-dweller.

STATE ASSISTANCE

The growth of State regulation of industry has included farming. In addition the State has taken active steps to help the industry; these measures have been of two types—those increasing the efficiency of the industry and those subsidizing it. The major part of the State's activities have been directed to increasing the efficiency of the industry, a sounder and more constructive policy for this country than that of excessive subsidy. These activities have included regulatory measures for the control of plant and animal diseases, security of tenure and compensation for improvements for tenant farmers, live-stock and plant improvement schemes, the prevention of fraud against both farmer and consumer, education and research into endless problems both of production and marketing. Among recent measures the establishment of the National Mark system has greatly assisted the demand for British products. The value of the State's part in promoting the efficiency of farming cannot all be estimated directly, but it is very substantial.

Protection and assistance to the industry at the expense of the rest of the community have not been entirely lacking, though perhaps slight compared with the protection given in other countries. This includes the restriction or prohibition of imports on the grounds of plant or animal disease infection.

The provision of special credit facilities is another method of assistance to farming, the rates of interest being presumably lower than could otherwise be obtained on the open market.[1]

[1] The position in regard to State provision of agricultural credit has been

The post-War subsidy on wheat and oats in 1921 meant the transference of almost £20 millions to farming from the Exchequer. The Sugar Beet Subsidy will have involved the State in a cost of about £35 millions at the end of its ten-year period in 1934. The Wheat Act in its first year has resulted in a further subsidy of £5 millions from the consumer to the farmer. It has been estimated that the relief from rates granted to agriculture is worth about £16 millions per annum.

In the last two years there have been the Horticultural Products Importation Act to protect British horticulture; the Import Duties Act which came into force in March 1931 and covered certain agricultural products; the Ottawa Agreements enlarging the scope of agricultural protection and aiming at increasing the level of agricultural prices in this country; these measures have been followed up by the further temporary voluntary restriction of bacon, beef, mutton, &c.

In fact, few other British industries have had so generous a measure of State assistance as agriculture has had.

Dr. Venn has divided the measures to assist British agriculture into three categories: (*a*) direct, recurrent and non-recurrent, grants; (*b*) reliefs from taxation in various forms; and (*c*) indirect forms of assistance.[1] The principal direct grants are estimated to have amounted to £70 millions in the last thirteen years, or about £6 millions in a year; indirect grants amount to another £4 millions a year. Relief by derating has amounted in recent years to about £16 millions per annum; preferential rail rates are estimated to be worth £800,000 per annum to agriculture; recent tithe legislation has relieved landowners of a charge of nearly £18 millions annually. It is an imposing annual bill—of over £45 millions per annum.

The common plaint, voiced by Sir John Sinclair so long ago as 1793, that 'while every attention has been paid to trade and every encouragement given to commercial industry, agriculture has been totally neglected', does not find much support in fact to-day.

discussed in *Country Life* (March 4th, 1933) by Mr. C. S. Orwin, who maintains that legislation has failed completely to meet the demand for *short-term* credit. See also Orwin, C. S., *Financing the Farmer: A Scheme to Provide Short-Term Credit*, Clarendon Press, 1933. Price 1*s.* 6*d.*

[1] Venn, J. A., 'The State and Agriculture'. Presidential address to the Agricultural Economics Society, July 1933.

MARKETING

The existing marketing organization has been severely criticized. It is perfectly true that the farmer has confined almost all his attention to his own business of producing; he has left the complex business of marketing in the hands of numerous specialists who have come in to fill the widening gap between the producer and consumer and to perform the increasing number of services which the consumer demands. At the present time there are about 1½ million persons directly employed in Great Britain manufacturing and distributing home-produced and imported food.[1]

The present interest in agricultural marketing is a phenomenon associated with the fall in agricultural prices over the last fourteen years; it is common to all countries which have suffered a similar decline. When prices in general fall, the decline in retail prices lags behind the drop in farm prices; there is no inducement to increased consumption to counteract the fall in prices; the farmer gets a smaller proportion of the consumer's expenditure on food. At the end of 1932, farm prices were only 3 per cent. above the pre-War level while retail food prices were 22 per cent. above. So the impression is created that the marketing system is inefficient.

Various factors have combined to keep marketing costs at a high level. The most important of these is the 'hang-over' from War-time price control and the elimination of competition which it entailed. The fixing of profit margins was an inevitable sequel to the fixation of any series of prices, farm, wholesale, or retail, and profit margins were fixed high enough not to eliminate the inefficient middleman.

The following extract from the Linlithgow Report sums up the position:[2]

'The absence of competition was accentuated by the introduction of food-coupons which tied customers to one particular distributor. In the same way the fixing of distributors' profit margins by the Ministry of Food, which was an essential feature of Control, destroyed in course of time the initiative of the private trader. The resulting lassitude did not vanish with the control that produced it, but showed a tendency to

[1] See Table XIX, p. 87.

[2] *Departmental Committee on Distribution and Prices of Agricultural Produce, Final Report*, p. 22. Ministry of Agriculture and Fisheries, 1924.

persist in the post-control period. Such energy as the retailer displayed was directed towards protective measures to maintain price margins rather than towards competition and the expansion of his individual business.'

Control was a temporary measure, and the elimination of the marginal distributor was no part of the scheme. At the retail end of the marketing chain in particular the habit of high profits during the War set a new standard, and means have been found to maintain high price margins. This, rather than increase of business turn-over, has been the rule. Rigidity in

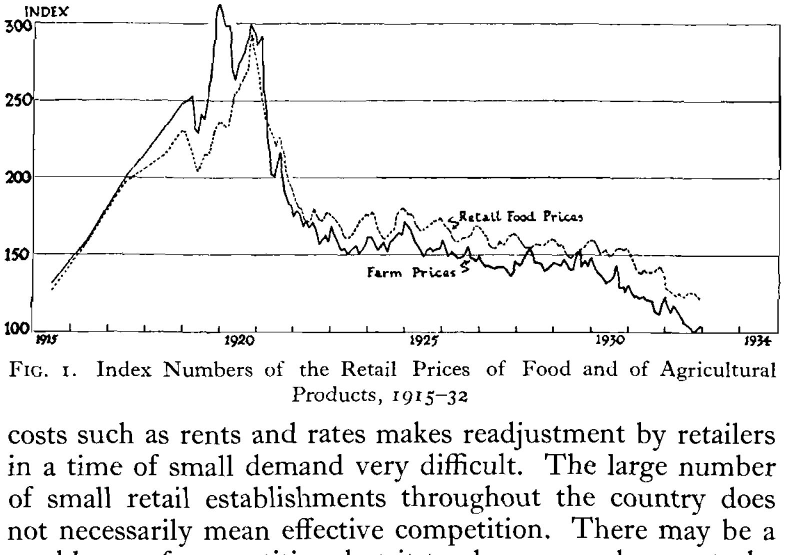

FIG. 1. Index Numbers of the Retail Prices of Food and of Agricultural Products, 1915–32

costs such as rents and rates makes readjustment by retailers in a time of small demand very difficult. The large number of small retail establishments throughout the country does not necessarily mean effective competition. There may be a semblance of competition, but it tends more and more to be weakened by price agreements.

Other reasons for increased costs of distribution are more justifiable, such as the increased services demanded by the consumer, e.g. delivery, packaged goods, credit arrangements.

Agricultural commodities naturally entail higher marketing costs than most other commodities; small-scale and widely dispersed production, perishable produce, marked variation, quantitatively as well as qualitatively, seasonally and from year to year, in both production and consumption. These things need to be borne in mind. Nevertheless the general distributive system is expensive, and it is desirable that it should be thoroughly examined and perhaps altered.

In most countries agriculture has gained more than any other industry by the development of co-operative organization. A small-scale industry stands especially to gain by co-operative methods. Why have British farmers done so little in this matter? There is in fact quite a healthy growth of co-operation for the purchase of agricultural requisites;[1] it is in co-operative selling that the growth has been spasmodic and the mortality rate of societies high. The success of co-operative purchasing shows that the British farmer is not too individualistic to co-operate; and there must be some reason why he has been so slow to realize the disadvantage suffered by small units in marketing and to remedy that disadvantage by co-operation, which would give him increased bargaining power and greater control of distribution. Time and again examples of successful co-operative marketing in the Dominions and elsewhere have been enumerated for the benefit of the British farmer. The success of overseas products on the British market is an object lesson always before his eyes.

The question is not so simple as it seems. The British farmer would surely have recognized the advantages of such co-operative marketing if the same conditions existed in this country. Conditions in a country catering for an export trade, where the producer is thousands of miles from the consumer, are not comparable with those where producer and consumer are in fairly close proximity. The former demands centralization and pooling; it may not be essential under the latter. When the consumer is close at hand individual marketing may be cheaper and better.

In this connexion, it must also be remembered that many of the existing middlemen are not employed full-time on agricultural marketing. The auctioneer is probably a land agent or valuer for a large part of the week, the local grocer undertakes the collection and sale of eggs as an adjunct to his usual delivery rounds, the corn merchant may sell fertilizers, and so on. The setting up of specialized whole-time salesmen for certain products under schemes for the reorganization of marketing may result in increased cost.

[1] The turn-over of farmer's associations for the purchase of agricultural requisites reached about £8½ million in 1930.

CHAPTER II

THE PRESENT DISCONTENT

THE causes which have led to the demand for some reorganization of British farming and to its acceptance by the industry are clear.

First, there is the agricultural depression which has been operative, in greater or less degree, since 1920. The landlord, whose return on capital has dwindled to almost nothing, is seeking a way out of the difficulty; the farmer, who has had an intense struggle to make ends meet and adapt his system of farming to ever-changing conditions, is seeking relief in any form whatsoever; the farm labourer, while his wages are practically subject to State regulation, is faced with unemployment owing to depressed conditions in the industry; all these are willing to accept a policy of reorganization which might be rejected in other times.

Second, the State is spending considerable sums of money either directly or indirectly to support the industry. Its investment must be justified, and some guarantee is required that eventually agriculture, developed on sound lines, will be able to do with less State assistance. Subsidies are recognized as mere palliatives, and some adaptation to new conditions is the necessary complement. Reorganization is demanded.

Third, there is the general trend towards increased State control in economic life generally. Its advocates see in the reorganization of farming an opportunity of advancing towards their goal.

Finally, the reasons for the acceptance by the farming industry of drastic proposal for reorganization are self-evident. Protection has been granted to agriculture only on condition that it underwent some sort of reconstruction. The farmers had but little choice in the matter. The fishing industry, however, another great primary industry, had no such condition attached to the granting of its protection.

The strongest motive for demanding reorganization is the plight of farming and its unprofitableness. Costs of

production and the prices received for agricultural produce are out of line; low prices appear to be at the root of the trouble, and the price system gets the blame.

It is well to recognize the position which the price system holds in our social and economic system to-day. Production, guided by price, is for a market that is on the whole competitive; combination, association, or monoply are merely further aspects of a competitive system; the study of to-day's problems must deal with the problems of a competitive order.

Furthermore, society is organized on the basis of specialization; we produce goods or services to exchange for other goods or services; the rate at which these exchange for one another, their exchange value, is expressed in terms of money; money and price occupy the key position in our present economic system. It is the relative prices of things which regulate the supply of all the millions of goods produced and services rendered in response to demand. If a commodity is scarce, relatively to the demand for it, its price rises and production is stimulated; similarly, if supply is in excess of effective demand, the price falls and production is curtailed; the fall in price is an indication that less is required. Price is the guide which regulates the world's output of goods in accordance with the world's demands.

It is for price to equate supply and demand. As supplies increase or demand decreases, prices tend to fall; as supplies decrease or demand increases, prices tend to rise; so regular are these tendencies that they became the accepted laws of supply and demand. It is well to remember 'that the term "law" means nothing more than a general proposition or statement of tendencies, more or less certain, more or less definite'.[1]

But price fluctuations in the last two decades have been so violent that the working of the price system has had the appearance of being anarchic. Agricultural prices in 1920 were 192 per cent. higher than in the three pre-War years; in 1932 they were only 12 per cent. above. In 1920 wheat was 18*s.* 10*d.* per cwt., barley 25*s.*, oats 20*s.* 5*d.*; in 1932 they were 5*s.* 11*d.*, 7*s.* 7*d.*, and 7*s.* respectively (Table VIII). These price changes are too great to be accounted for solely

[1] Marshall, *Principles of Economics*, p. 33, 6th edition, 1910.

by a vast increase in the supply of all agricultural commodities or to a big decrease in the real demand for food. The price of all agricultural products on the average fell 62 per cent. between 1920 and 1932. Some common cause must be present. This can be found in fluctuations in the value of money.

TABLE VIII

Prices of Agricultural Products in England and Wales in 1920 and 1932.

	1920	*1932*	*Percentage decline*
	s. d.	*s. d.*	*per cent.*
Wheat, per cwt.	18 10	5 11	−69
Barley, per cwt.	25 0	7 7	−70
Oats, per cwt.	20 5	7 0	−66
Fat cattle, per live cwt.	91 0	39 9	−56
Fat sheep, per lb.	1 9½	− 7¼	−66
Fat pigs, per score	33 10	9 9	−71
Milk, per gallon*	2 2½	1 0½	−53
Butter, per 12 lb.	40 5	13 9	−66
Cheese, per cwt.	176 10	93 9	−47
Eggs, per doz.	3 11	1 3	−68
Potatoes, per ton	238 0	153 0	−36
Wool, per lb.	3 5	5¼	−87
All agricultural products	..	..	−62†

* Liquid milk sold on contract. † Weighted index.

This instability in the value of money and the general fall in prices have tended to overshadow the normal factors which usually help to determine price. The validity of the laws of supply and demand is denied by many. But they are not in fact vitiated, since the effect of changes in the value of money on prices may be considered to work through the demand factor. An increase in the volume of money and credit in the hands of consumers prepared to make use of it results in an increased demand for the products which money buys and in higher prices. A decrease in the volume of money and credit works the opposite way.

The laws of supply and demand are at work all the time even though their action may appear to be concealed by instability in the value of money. They are still effective and still determine prices. Given time, they will demonstrate

their validity to the discomfiture of those who choose to ignore them. Belief in the laws of supply and demand is the basis of all proposals for influencing, controlling, or stabilizing price through the regulation of supply. Denial of these laws would render such an approach to the problem of price-stabilization hopeless from the start.

However, it must be admitted, without prejudice to the laws of supply and demand, that changes in the value of money do play an extremely important part in the determination of prices and in the fortunes of agriculture.

Fluctuations in the transaction value of money itself are in general shown by the movements of the general price-level. The wholesale price index is a weighted average of wholesale prices of a large number of commodities and it is based on the assumption that normally, while fluctuations in individual commodity prices may occur, it is improbable that an increase or decrease in demand or supply would occur simultaneously for all the commodities included in the index. A rise or fall in the average of all prices, in the general price level, is usually then considered as denoting a change in the value of money.[1]

The course of the general price level over the last eighty years is shown in the following diagram. It can be seen that the value of money has fluctuated considerably; four fairly distinct periods can be seen, according to the trend in the price level:

Period	*Trend in general price-level*	*State of agriculture*
1850–73	Rising	Prosperous
1874–96	Falling	Depressed
1897–1920	Rising	Prosperous
1920–	Falling	Depressed

These movements have a profound effect on the well-being of farming. There is much justice in the claim that variations in the value of money have been responsible for greater changes in the fortunes of agriculture than have arisen from any other single cause.

The reasons why falling prices affect agriculture more seriously than many other industries are threefold:

[1] No index is perfect as a measuring-rod, and many people urge that the British indices are overweighted with agricultural commodities, but any one of them serves as a reasonable guide.

(*a*) The slow turn-over of capital.
(*b*) The 'lag' in the movement of production costs compared with farm-gate prices.
(*c*) The type of organization in agriculture makes it peculiarly resistant to economic pressure, and the response to falling prices is often long delayed; readjustment is slow.

There is little need to enter into the details of these causes;

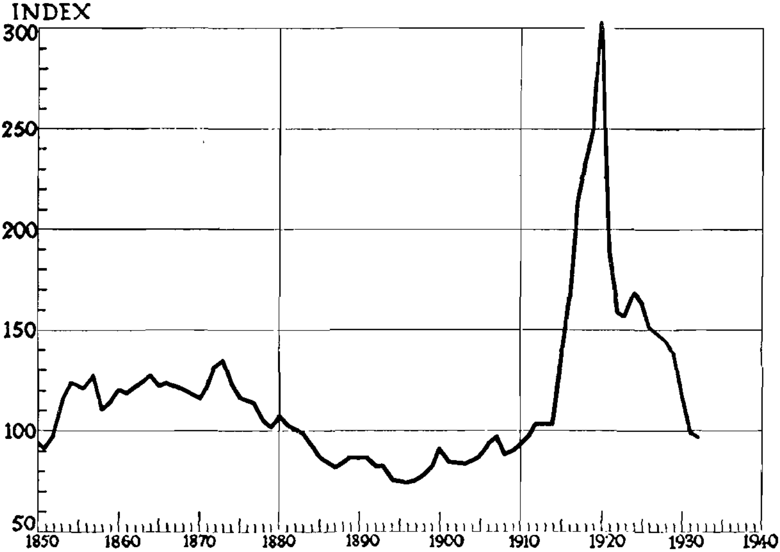

FIG. 2. Movements in the General Price Level, 1850–1932

they are well described elsewhere, not only in the post-War literature on monetary theory in its relation to agriculture, but in the reports of the committees which have sat during earlier periods of agricultural depression. Here are three quotations from the Commission which sat 100 years ago, in 1833:

'Steadiness of Price, which is conducive to settled habits and forms the basis of all fixed engagements, is the primary object never again to be overlooked.'

'Fluctuations, whether they arise from alterations in the value of Money, or from changes of the Corn Laws, cannot fail to produce evils in every branch of rural economy.'

'I have no doubt that the main cause [of the distress in Agriculture]

has been the pernicious fluctuations in the monetary system of the country, more than over-production.'

One example may serve to show how falling prices may upset the most careful calculations. In certain parts of the country, the dairying system calls for the purchase of down-calving cows, keeping them for a lactation period, and then selling them off a year later on the fat cow market. A certain amount of depreciation is, of course, expected, but falling prices exaggerate this factor in costs. In 1921 down-calving cows were costing about £57 and the farmer reckoned to get about £40 for a fat cow; with milk at 1*s.* 11*d.* per gallon, the depreciation cost would be covered by about 176 gallons of milk. But owing to the general fall in prices, fat cow prices had fallen to £25 in 1922; the depreciation cost had risen from £17 to £32, and as the price of milk had fallen to 1*s.* 4*d.*, it now required about 500 gallons of milk to pay the depreciation cost instead of the estimated 176 gallons. So it goes on throughout the whole period of falling prices; production costs are incurred at a higher level of prices than that at which sales take place.

Again, there is the lag in the fall in production costs, such as wages, interest rates, costs of distribution, &c. Take agricultural wages: they have not declined with the prices of farm produce, and an increased quantity of produce has to be sold to meet the relatively high wages cost. The following figures show the approximate quantities of various products required to meet the cost of 50 hours of labour in a certain English county:

TABLE IX

Quantities of Agricultural Produce Required to Pay for 50 hours of Labour in pre-War and post-War years

Year	*Wheat*	*Barley*	*Fat cattle*	*Fat sheep*
	cwt.	cwt.	lb.	lb.
1914 . .	2·4	2·6	67	29
1925–7 . .	2·8	3·0	79	35
1928–30 . .	3·8	3·6	84	36
1931 . .	5·9	4·3	90	40
1932 . .	5·6	4·4	93	55

In 1932 it would take 133 per cent. more wheat, 69 per cent. more barley, 39 per cent. more beef, or 90 per cent. more mutton to pay for 50 hours of labour than it did in pre-War years.

Similarly, interest rates remain high: a farmer who borrowed £5,000 at 6 per cent. in 1921 would have required only 84 qrs. of wheat to pay the interest; whereas it would take 133 qrs. at 45*s*. and 240 qrs. at 25*s*. per qr., the present-day price.

Distribution charges, which are made up largely of costs that are fairly rigid, such as labour, rent, transport charges, &c., also remain high during a period of falling prices, and the farmer gets a decreasing share of the £ that the consumer pays for his food.

Another serious difficulty is the slowness with which agricultural production is guided by price. The index numbers of the world production of agricultural and industrial goods for the last two years are given in Table X. The production of foodstuffs in 1931 was practically at the same level as in 1925–9 in spite of a rapid fall in prices. Industrial production, on the other hand, had responded to falling prices and had been cut down about 16 per cent.[1] The difficulty in agriculture is caused by the organization of the industry; production is in the hands of so many small producers with little hired labour; their cost of production figure is extremely elastic, and consequently prices can fall very far before production is curtailed. They meet falling prices by producing more, working longer hours, and working harder. In agriculture, therefore, the operation of the self-adjusting mechanism for the guidance of production by price is slower than in many other industries.

The importance of the general decline in prices cannot be over-estimated. It is at the root of the agricultural depression throughout the world. Agriculture can in time adjust itself

[1] The following table from the most recent publication of the League of Nations' Economic Intelligence Service tells the same tale.

	1925–29	*1929*	*1930*	*1931*	*1932*
Agricultural production	100	104	103	103	102
Non-agricultural production	100	114	101	86	73

TABLE X

*Index Numbers of World Production of Various Classes of Goods**

	1925–9	*1930*	*1931*
Foodstuffs	100	101	99
Raw materials	100	101	91
Raw materials for consumers' goods	100	100	100
Raw materials for producers' goods	100	98	82
Production in twelve industrial countries	100	97	84

* Condliffe, J. B., *World Economic Survey, 1931–2*, League of Nations, 1932.

to low prices, but it can never reach any stage of equilibrium if prices are falling continuously. Returns and production costs under these conditions must remain out of line.

Though prices had fallen rapidly between 1920 and 1924, they remained relatively stable for the following years, and by 1927–9 agriculture seemed to have adjusted itself to a price level of about 50 per cent. above pre-War; costs had been reduced in various ways to meet such a level of returns, and farming was slightly more prosperous. Once again, however, prices began to slip and the catastrophic fall started again. It is this last straw that has broken the camel's back, and has precipitated emergency legislation in England and elsewhere.

For example, if the value of money had remained the same in 1932 as in 1927–9, porker prices at the end of 1932 would have been about 18*s.* per score instead of an actual price of 12*s.* 6*d.*; baconers 15*s.* 6*d.* instead of 10*s.* 3*d.* If the general price-level had remained steady, and if these prices had been ruling in 1932, would there have been the same agitation for the reorganization of the pig industry? The agitation has been caused by exceptional conditions rather than by any general desire for a control scheme.

While the fall in prices has created marked disturbances in agriculture, its effects are not confined to agriculture alone. They have permeated practically all industries in all countries where the fall has occurred.

The cause of the fall has been and is still the subject of endless discussion. There are two main bodies of opinion: the one holds that the fall of prices is primarily due to monetary causes, the other that the disturbances which have

caused the fall in prices are non-monetary in origin, including such factors as War debts and changed relationships between debtor and creditor countries; rapid technical changes in production, both industrial and agricultural; general instability following the War; the growth of tariffs and other barriers to world trade, rigidity of wage levels and other costs, and so on.

The Macmillan Report stated their conclusions as follows:

'Our view is that the price level is the outcome of interaction between monetary and non-monetary factors, and that the recent world-wide fall of prices is best described as a monetary phenomenon which has occurred as the result of the monetary system failing to solve successfully a problem of unprecedented difficulty and complexity set it by a conjunction of highly intractable non-monetary phenomena.'[1]

The fact remains that money and price have failed to fulfil their function, the equating of supply and demand. Whether the instability of the monetary system has caused the maladjustment of production to demand or has resulted from it is rather just a new edition of the old 'hen and egg' story: which came first?

The problem is to bring production and consumption into line with one another.

One view is that regulation of production and consumption by price is still a workable system for modern needs, but that owing to the failure of money to do the job properly the price system has broken down temporarily. Get money to work properly in a properly working world and the system will carry on as successfully as before. The Macmillan Report states that the failure of money has been due to the presence of 'highly intractable non-monetary phenomena'; remove these and money will work again as the adjustor of supply and demand. Some people go even farther, and state that regulation through price could be made more effective than in the past by the more scientific operation of central banks or governmental control.

The second view is that the regulation or adjustment of industry by the free play of prices is antiquated and does not work under modern conditions; that the money system is weak and cannot be patched up; that some other method of control is necessary in the place of price.

[1] *Committee on Finance and Industry Report*, p. 93, Cmd. 3897, 1931.

The immediate situation with its abnormal financial crisis has strengthened this second view, and to-day on all sides one finds the agitation for 'planning' and controlling, alike on a national scale, by groups of individuals, or by industries—a plan for this, a scheme for that, reorganization of this, and rationalization of that. The self-adjusting mechanism of *laissez-faire* is being abandoned, and conscious regulation and planning are invoked either to overcome the obstacles which have prevented price from acting or to supersede it in the equating of supply and demand. The aim of 'planning' is to achieve this in a more satisfactory way than under the *laissez-faire* price system, and if possible to attain to a degree of stabilization which, it is claimed, the competitive system by itself has failed to provide.

The Minister of Agriculture in his speech to the Council of Agriculture in 1932 heralded the dawn of this new economic policy for agriculture—a policy of control to replace what he termed 'the old policy of cheapness'.

If there is to be a policy of control, the questions immediately arise—what is to be controlled, and by whom? Production or consumption? Control of production or of marketing or of both? Is control to lie within the industry or outside it? Is this control to take the place of the price system in guiding production or is it to work alongside it?

It is exceedingly important, if we are about to start on a new means of regulation, to realize that up till now the fundamental principle of all economic development has been the regulation of production by price. If the break-down of the price system has caused the crisis, how far can we get away from it by other means of regulation? Or, to look at it another way, how far have we to go with schemes of regulation and control in order to be able to control price?

CHAPTER III

SELF-REGULATION OR STATE CONTROL

THE first question to be considered is in whose hands the control of the industry is to be placed. Generally speaking, control of production now rests with the individual farmer alone, while marketing to a great extent remains beyond his control. State interference in marketing has hitherto been limited to encouraging the grading of produce and ensuring the purity of supply on the grounds of public health.

But if there is to be reorganization, is there to be some reorientation of control or is it to remain as before? Control may remain in the hands of the individual, of groups or associations of individuals, or of the State.

Individual control has marked economic organization since the industrial revolution, but it was not always so; the guild system of medieval times was based on communal control, so was the village community which persisted down to much later times. But from the middle of the eighteenth century until the end of the nineteenth, individual control was the key-note of the competitive economic system.

Our present social system is based on two institutions, private property and freedom of enterprise. It is obvious, however, that this system in its most logical form has not been followed for many centuries. For example, certain means of acquiring wealth have been made illegal, while taxation has encroached on the absolute control of wealth by individuals. But the greatest part of our economic activities are still dependent on private property for incentive, and on freedom of enterprise and competition for regulation.

Freedom of enterprise is essential to the present competitive system, and it is on competition that society relies to secure the most economic application of labour and capital in the production of wealth. Market value, or price, is the indicator to guide production; if the value goes up, signifying that more is wanted, it offers higher remuneration, and under a system of free enterprise more producers can be relied on to augment the supply. If the value falls, indicating that the demand has

decreased or the supply is too great, productive efforts are turned in other directions. If a producer is getting more than his due, then, where there is freedom of enterprise, competition is attracted and returns are decreased, and the consumer safeguarded. If the rewards are too low in any line of production, capital and labour are free to enter some other line, supplies decrease, and prices rise to increase the returns. Competition, therefore, has been relied upon to regulate production and distribution and to secure efficiency. This trust in the self-adjusting mechanism of free competition has been the basis of the *laissez-faire* economic system.

Complete *laissez-faire*, however, never has been allowed free play. There were admittedly dangers in leaving production and distribution to be regulated by competition alone, and consequently there has been a steady increase in State regulation or interference with private enterprise. The Macmillan Report states, in connexion with our adherence to a *laissez-faire* policy, that it is to it that

'we owe the development of our great political, financial and social institutions and the amazing growth of our industrial activities. But we also owe to it in part many of our deficiencies, such as our industrial instability, our social maladjustments, our slums.'[1]

The State has stepped in with certain regulatory measures intended to surmount these difficulties. This is the basis of the new policy of control and the cause of the increasing amount of legislation affecting the everyday life of the individual.

'This new orientation has its dangers as well as its merits. . . It is of vital importance that the new policy, while truly promoting liberty by securing better conditions of life for the people of this country, should not, in its zeal for interference, deprive them of their initiative and independence which are the nation's most valuable assets.'

The interference of the State in farming up to the present time has been mentioned already. These measures have had their counterpart in other industries. Factory legislation has placed certain limits on private enterprise; the private citizen's life is affected daily by State regulation and interference; taxation, licensing acts, health laws, early closing regulations, wages boards, motor regulations, are a few of the

[1] *Report of the Committee on Finance and Industry*, p. 5, Cmd. 3897, 1931.

ways in which the State limits individual freedom; few quarrel with them, and they increase every year. The reaction against *laissez-faire* and its deficiencies has been rapid: instead of economic organization controlling the State as it did in the last century, there is this marked trend towards some sort of social control over competition.

Two alternatives have been advocated: (*a*) control by the State, or (*b*) control by the industries themselves. The former may overcome some of the handicaps of the competitive system, while the latter may be able to cure others. For example, one of the most serious objections to the competitive system, dependent on freedom of enterprise and private property, has been that that freedom of enterprise has not been accompanied by any real equality of opportunity, with consequent waste and inefficiency in the system. State regulation through taxation and education is endeavouring to overcome this objection, while retaining the undoubted proficiency of the competitive organization for production. A further alleged objection to the competitive system is its wastefulness in marketing; this can be overcome to a great extent through regulation within the industry itself.

Up to the present most of the State's activities, except in time of war, have been confined to imposing limitations to private enterprise, and only in a few cases, such as the postal and telegraph services, roadways, public utilities, and to a certain extent education, has the State superseded it. Recent legislation indicates a belief that the State is expecting individual industries to overcome the wastes of the competitive system and to put their own houses in order. Control is deliberately being left in the hands of the producers themselves.

This is a very remarkable change of attitude, and is noticeable not only in this country but also abroad. In the United States and Germany, where industrial combination was developed several years in advance of this country, the movement was viewed with distrust; Germany had regulatory legislation to limit its scope, while America resorted to anti-trust laws. In this country various Royal Commissions sat to consider the possible dangers associated with the growth of monopolies.

Now, however, they are being encouraged. Policy has been reversed. In Germany, special legislation, made possible by the favourable attitude of the State, has ensured legal recognition and enforcement for even temporary industrial combination. In America, the previous harsh legislation has been mitigated, and, so far as farming is concerned, farm relief has been made conditional on some sort of organization, co-operative or otherwise.[1]

In Britain, the State has not only ceased to distrust association of producers, it has fostered the tendency. But what is more significant, legislative powers have been taken to enforce, if necessary, organization of this kind on an industry.

The Railways Act and the electricity scheme illustrate this tendency. The Railways Act of 1921 left the ownership and management of the railways in the hands of the railway companies, but provided for their amalgamation into four groups. The Coal Mines Act of 1931 leaves no doubt as to the attitude of the State towards combination. It left the production of coal and its sale in the hands of the collieries, but provided for the restriction of production by means of a quota system enforced by law. It also introduced methods for drastic reorganization: the failure of certain Scottish mines to reorganize and assume centralized self-control has been met by compulsory action.

Finally the State has intervened in agriculture. The Marketing Act of 1931 authorized the placing of centralized control of the various industries which go to make up agriculture in the hands of the farmers themselves. It has since been implemented by sections of the Marketing Act of 1933. The Marketing Acts can, therefore, be considered as the outcome of the general trend in economic and political development, and not as a sudden and unprecedented imposition. They permit agriculture to come into line with other industries. The State has not been content with a merely passive attitude. Protection against the competition of foreign imports is not to be granted to farming until such steps are taken towards centralized control of individual branches of production as

[1] Since this was written, both States have progressed much farther on the path of State interference in industry.

may be deemed sufficient. The promise of protection on terms is a form of incentive which is open to criticism.

The new policy of leaving control of individual producers to a central authority appointed from within the industry itself, possibly with governmental supervision, is intended to be the mean between the old *laissez-faire* policy and one of complete State control. Organization and association of producers are to eliminate some of the evils of excessive competition; they certainly restrict it. Two types of combination may be distinguished according to their motives—combination to restrict competition in selling and combination to restrict competition in buying. A consumers' co-operative is a good example of the latter; as individuals the members still compete as buyers, but for the purposes of dealing with other groups, say with manufacturers, common interest brings them together for bargaining purposes and each consumer's unit ceases to compete against other co-operative units; competition is restricted.

The farmer, however, is more interested in eliminating competition in selling, which lowers prices. Hitherto the individual farmer has been content to compete against his fellow producers in dealing with the buyers of his produce. He has seen the advantages of combining to restrict competition in buying (as the success of co-operative purchase of requirements has shown), but he has not seen it in selling. The case of milk is an exception. Combination in that instance was forced on him by the existence of a strong combine in the distributive trade.

There are two main types of industrial combination for the restriction of competition, known as vertical and horizontal combination. In the former, firms at different stages of the same industry combine: a firm manufacturing finished products may combine with the provider of the raw materials and with the manufacturer of the semi-finished product. This type of organization is fairly common in the iron and steel industries. It is growing in the textile industries. Lever Brothers, the soap makers, extend backwards and have obtained control of oil mills and oil-seed supplies, especially of palm kernels in West Africa; paper and printing works have obtained control of paper mills, pulping mills, and lumber

forests. But on the whole this vertical type of organization is not adapted to the processing and manufacturing of agricultural products. The industrial co-operatives have attempted agricultural production on their own account, but the experiment has not been particularly successful. The handicap, of course, lies in the small unit in most forms of agricultural production.

Farming lends itself more readily to the horizontal type of combination, based on the combination and association of firms or individuals at the same stage of the industry. This type of combination aims at the elimination of mutual competition and the substitution of mutual control and regulation.

These organizations assume various forms. They may be temporary, aimed at short-time control for price-raising purposes, collective bargaining, or the presentation of a united front in putting forward their point of view. They may be merely informal agreements for the purpose of fixing selling prices. Others may be more formal associations, with more definite price agreements, regulation of terms of sale, or arrangements for pooling of trade; this type involves, more or less automatically, control of output and limitation of production in order to maintain trade prices. Until recently this type of organization has been looked upon as contrary to public policy both in this country and in the United States, and such agreements have not been enforceable under the Common Law.[1] The Coal Mines Act and the Agricultural Marketing Acts, however, signify a new departure and sanction such agreements. The Marketing Act gives agricultural producers an opportunity of wielding powers even greater than those permitted in the coal industry.

The weakness of informal agreements led to what is known as the 'trust', the complete amalgamation of different units. This type involves the complete centralized control of every

[1] Compare the case of *Evans & Co.* v. *Heathcote*, 1918, where a combination of manufacturers was formed for the purpose of controlling prices, and the agreement made between them restricted the output of each member and provided that the members should sell only to certain firms and only upon the terms and prices which should be fixed by the association, and provided no means by which a member of the association could terminate his membership; it was held that the restraint so imposed was unreasonable as between the parties and that the agreement was invalid at Common Law.

activity of the members—of production, of marketing, of finance, and so on.

In the type of horizontal combination known as the 'cartel', the competing producers may combine only for selling purposes. The type of centralized producer-control has progressed farthest in Germany, where the law has sanctioned enforcement of trade agreements for price regulation and output control. These controls are of three main types.

In the first type individual component firms agree to place the marketing of their output in the hands of the cartel, while retaining their individual freedom in production; the cartel may fix prices, or it may allot market areas to different firms, or it may actually do the selling. In the second type, the different units may retain their independence in marketing but may submit to the regulation of the cartel in regard to output; the cartel may allot production quotas to individual producers which cannot be exceeded without penalty. The third and most advanced type of cartel may undertake both functions, allotting production quotas and disposing of the output.

Only one of the main types of horizontal organization is capable of application to agriculture, since farming of whatever type consists of thousands of small production units. The temporary agreement is of no permanent value, even if it were attainable. The informal agreement, with its price lists, &c., is impracticable owing to the variations in quantity, in quality, in systems of production, in demand, and so on. The combine or trust type is obviously unsuited to agriculture.

There is left, then, the cartel type of organization with its varying degrees of control. The one which places its output in the hands of a central selling agency and permits its individual producers freedom in production must suggest immediately the large-scale co-operatives, such as the Canadian Wheat Pool. Up to the present only one or two organizations of this type have developed into the type of cartel which has attempted control of production. The Marketing Acts select for the different branches of agriculture a selling system of the advanced cartel type, which permits the fixing of prices and under certain circumstances the allotment of production quotas.

The policy of placing the control of an industry within the

hands of the producers has been sanctioned by the State for the express purpose of overcoming the evils of excessive competition between producers.

The main incentive to industrial combination to-day is no longer the hope of obtaining monopoly profits, which has proved illusory, but the securing of increased profit through decreased costs. The economies of large-scale production are not the only ones attainable through combination; there are further economies through the better adjustment of supply and demand, the stabilization of price, and economies in selling. These advantages are of special interest to the farmer at the present time, when supply and demand appear to be so out of line, when large stocks of agricultural products are driving down prices, and when selling costs and the middleman swallow up so large a part of the consumer's £.

The elimination of excessive price fluctuations and of waste in marketing—two of the handicaps of the competitive system—would be of general advantage to the State. If combination of producers can achieve this, without reducing efficiency or exploiting consumers, then the new control policy is justified.

Centralized control in industry is expected to achieve reasonable success in these directions. If producers can control supply, they are in a position to maintain more uniform prices in spite of market fluctuations. The recurring periods of over- and under-production which characterize the economic system to-day—the periods of depression alternating with periods of expansion—are due to price fluctuations which are enhanced where there is no restriction on competition or production. Suppose for a moment that some cartel of raw material producers had control of supplies and was able to maintain a level of 'boom' prices when a period of depression was setting in. Manufacturers would be unable to pass back to them the reduction of prices of their manufactured goods; they could not adapt their costs to the fall in prices since they could not force lower prices back to the primary producer; they would have to curtail output, which would be the right course if over-production had been the cause of the original price fall. Readjustment of supply and demand would be almost immediate. If, on the contrary, the manufacturer had been able to force lower prices on to the primary producer

production would not have been curtailed and readjustment would have been postponed.

This stabilizing effect of combination among primary producers depends on their having complete control of supply, otherwise the high price which they might maintain would inevitably lead others to augment production of raw materials and only add to the disequilibrium.

There is a further aspect of industrial marketing. As an industry increases in size, it becomes more unwilling to trust the marketing of its goods to others, the wholesaler and retailer, and accordingly it sets up its own sales organization, including salesmen, shops, agencies, advertising, and so on. This has created a great amount of duplication and redundancy, and it is for the reduction of these that the cartel type of organization offers opportunities.

If these two achievements are open to industrial combination, can they be obtained by agriculture as well? Can the benefits of the new control policy, the policy of centralizing the control of the industry in the hands of the producers, be extended to agriculture?

It would be a mistake to leave the impression that association or combination of producers is the rule rather than the exception in industry. In no country is the whole economic system dominated by groups of producers, and free competition still determines the existence of the individual units. Combination is still relatively in its infancy. Agriculture, on which two-thirds of the world's population is engaged, is organized on individual lines, and combination is still uncommon amongst the distributive trades, both wholesale and retail, except in the relatively few cases in which industrial combines have themselves entered the field of distribution.

There appear to be definite limitations to the scope of the cartel type of organization, especially if the cartel is of the more advanced type and sets out to control output. First, cartel organization can only be applied to a product which is fairly well standardized and uniform in quality, such as oil, coal, or sugar; it would be impossible to arrive at price agreements, conditions of sale, pooling, the distribution of returns, the allocation of production quotas, and control of supply where the quality of the product is variable. Secondly, the

system will only work where a large proportion of the supply can be controlled. For this purpose two conditions are important: either a large amount of initial capital is needed to start production, or the sources of the raw materials must be limited, as in the case of potash. Industries which deal with commodities produced almost anywhere and those which are easily established are not well suited to cartel organization. Thirdly, the cartel type of organization is facilitated if there is a lack of substitutes for the product.

It must be admitted that agriculture does not in general enjoy these favourable conditions. Agricultural products with few exceptions do not possess uniformity in quality or standardization, though the number of agricultural products dealt with on organized exchanges, which demand uniformity, is increasing fairly rapidly.

Again, agriculture, as it is at present organized in most countries, does not require heavy initial capital investment, nor are there many products which cannot be grown in many parts of the world; there is neither limitation of resources nor marked localization of production in any of the products in which British agriculture is concerned.

Finally, there are remarkable opportunities for the substitution of one food for another: energy, proteins, vitamins, or whatever special property is demanded can be obtained from hundreds of different foods; none is derived exclusively from one food.

The difficulty of organizing agricultural producers is intensified by the immense number of producing units. In the United Kingdom there are over 500,000 agricultural holdings, while in other industries the number of units responsible for the bulk of the output is relatively small. Even in the case of a single commodity, such as wheat, the number of producers is many times greater than in any other single industry. Add to this the complicating factor that one producer may be selling ten or more different commodities. Compare conditions of this kind with those in the coal industry, which consists of only 2,500 mines, worked by only 1,400 separate undertakings, all selling a relatively uniform product. The problem of centralized control of coal should be comparatively simple.

Experience of the working of cartellized industries shows that it is essential to the successful working of schemes that each member of the cartel should have all the information of the group with regard to costs. It may be possible for a group of manufacturers to ensure a degree of equalization of costs, but it would be a very difficult matter for a large number of small farmers to do the same thing.

Thus the problem of organizing agriculture under centralized control is not an easy one. The initial handicaps are formidable, and there are definite limitations to the possible scope of control.

CHAPTER IV

PRICE CONTROL

ONE of the most important criticisms brought against the competitive system is that it involves excessive price fluctuations and economic waste. The demand for some commodity is stimulated and its price rises; profits appear, production is increased, new producers join in, capital is attracted, factories are built, and labour is hired. Demand is over-estimated and over-production occurs. Meanwhile the price has fallen considerably as a result of the surplus; production has to be curtailed, factories work only at a fraction of their capacity, machinery lies idle, and workers are paid off. The process continues until production fails to satisfy market demand and the cycle is started off once again by a rise in price. Market requirements are alternately over- and under-satisfied; prices rise and fall excessively.

The phenomenon of cyclical fluctuation is well seen in the movement of pig numbers and prices in this country. Pigs are 'muck or money', or 'copper or gold', in quick succession; sties stand empty or crammed full; bacon factories are working at

TABLE XI

Variations in the Supply of Bacon Pigs

Average annual supply of bacon pigs 1923–9		*Average weekly supply of bacon pigs in the months Jan.–Dec. 1929*	
1923	35,100	January	542
1924	43,000	February	398
1925	41,400	March	692
1926	33,100	April	731
1927	23,600	May	529
1928	33,800	June	535
1929	27,200	July	559
		August	590
		September	593
		October	523
		November	423
		December	206

half capacity for some months and then strained to the utmost capacity the next year. All this entails waste of human effort.

The data in Table XI indicate the marked fluctuations in the supply of bacon pigs at a typical factory, from year to year, from month to month, and from week to week.[1] One year it dealt with 43,000 pigs, while another year it had only 27,200; the average weekly receipts in 1929 varied from 731 in April to 206 in December. The effect of these fluctuations on the cost of curing bacon is also given in the Report of the Pig and Pig Products Reorganization Commission. An increase from 684 pigs per week to 902 lowered the cost of curing from 9*s.* 2*d.* per cwt. to 7*s.* 9¼*d.*, a reduction of 15 per cent. It was estimated that to increase the slaughtering to 2,500 a week would reduce the cost by 45 per cent.

TABLE XII

Numbers of Pigs Slaughtered and Production Costs

Average kill per week	*Cost per cwt. of green bacon* s.	d.
684 (year ended April 1932)	9	2
902 (year ended Oct. 1928)	7	9¼
2,000 (assumed)	5	9¾
2,500 (assumed)	5	1

The cost of this wasted labour and capital is to a great extent due to price fluctuations and the maladjustment of supply and demand.

The desire for price stabilization is growing; for the individual farmer, whose own production is a mere drop in the bucket, price appears as some factor beyond his control, yet which means success or failure to his year's work. He knows that large crops will bring low prices, but he feels that the low prices are out of all proportion to the size of the surplus. It seldom occurs to him that the rise in price consequent upon a shortage in supply is also excessive. He wants some measure of price control in order to achieve a reasonable measure of price stabilization.

[1] *Report of the Reorganization Commission for Pigs and Pig Products*, Economic Series No. 37, Ministry of Agriculture, 1932.

To-day there is an additional motive for price control. Stabilization is not enough in itself; it must be stabilization at a higher level than at present. The disastrous effect of falling prices on agriculture has been noted already, and the farmer has every reason for desiring to get the prices of his produce back on a level with his costs and with the prices of the things he has to buy.

A clear distinction should be kept between the two motives for price control, namely more stable prices and higher prices. It should also be remembered that stable prices do not always signify a stable income, which is what the farmer really wants. For example, at present a short potato crop is counterbalanced by high prices, so that total income is not affected; the producer has to remember that a small crop at stable prices means a drop in income.

What are the main causes of price fluctuations, one or all of which must be controlled to achieve either stability or a rise of price? They are three in number, though the dividing line between the first and second is very indistinct:

(*a*) Variations in the value of money.
(*b*) Variations in demand.
(*c*) Variations in supply.

Fluctuations in the value of money, to which may be attributed a great part of the agricultural depression, lie within the province of State policy, and are obviously beyond the control of the farmer, either as an individual or collectively. Only to the extent that he is organized and may thereby make strong representation of his interest can he influence this factor indirectly.

Variations in demand are also generally beyond the influence of the farmer, especially in these days when there is so great a diversity of foods, both in type and quality, from which the consumer may pick and choose. The farmer must in general follow the consumer's demand; he cannot guide it to any great extent. Advertisement is the only means by which the farmer can hope to affect consumption habits, and this must follow organization in order to be successful. Yet here again the variety of interests within the one industry emerges: an 'Eat More Fruit' campaign might result in an increase in fruit consumption, but it would probably result in a decrease

in the consumption of some other food. Human capacity in consumption is limited. The same objection could not be raised against a general 'Eat More Home Produce' campaign. Though no data are available, the 'Buy British' slogan must have had a considerable influence.

There is, however, another method in which organized producers might be able to influence the demand for any one commodity, namely the reduction of distribution costs; retail prices may be directly affected in this way and demand may be stimulated.

The variations in demand which the farmer has to consider are of three types: long-time changes, seasonal changes, and year-to-year changes.

The first are slow, and though they have had a profound effect on British farming in the past sixty years they are not of everyday concern to the farmer. They form part of a long-range policy. Occasionally one may find a sudden change in demand, but not often; for instance the rapid increase in the demand for liver, more or less for medicinal purposes, has raised it from the offal class of meat at a few pence per lb. to one of the dearest parts of the carcass.

The long-time changes in the kind of food that people eat are a good indication of economic progress.[1] As the wealth of a country increases and standards of living rise, people alter their diet to suit their increased incomes, and dearer foods take the place of cheaper. There may be exceptions owing to racial or religious customs, but many of these, too, may be found to have an economic basis.

One of the most general changes is from the consumption of cheap cereals such as rye or rice to wheat flour. In Central Europe the peasants normally eat rye bread, but when times improve they turn to wheat bread. Similarly in the Far East wheat is substituted to an increasing extent for rice when economic conditions are good.

A further advance is from cereal to live-stock products, such as meat and butter, and finally towards the greater consumption of fruit and vegetables. This latter change in diets as

[1] Parts of the following notes on the consumption of live-stock products were written for Bibby's *Hearth and Farm*, 1933, and are reproduced by their kind permission.

standards of living rise is of immense significance to British farming, which is specially favoured for the production of these dearer-valued foods, and therefore enjoys a certain measure of natural protection.

Following the Industrial Revolution, the wealth of this country grew very rapidly, and the consumption of more expensive foods increased. Take meat, as an illustration: in the middle of the last century the average person in Great Britain ate about 80 lb. of meat in the year; nowadays it is just about 150 lb., almost twice as much.

This does not mean that everybody's consumption of meat has doubled. In the old days, the richer classes probably ate more than they do now, but that was offset by the low consumption of meat by the poorer people. Contemporary literature gives a good picture of earlier habits. The Rev. James Woodforde, a parson in Norfolk at the end of the eighteenth century, recorded in his diary the menu for a dinner for eight.

'We had for dinner—1st course, A Dish of Soals boiled and Fryed, Couple of boiled Chicken and Tongue, Beans and Bacon, stewed Beef and an Haunch of Venison rosted at the lower end. 2nd course, a Couple of rost Ducks and Green Peas, a Leveret rosted, Maccaroni, Patties, Blamange, red-Currant Pye, &c. Desert, Rasberries and Strawberries, Gooseberries and Currants. After Coffee and Tea we got to Cards, to Cribbage.'

These meals were by no means out of the ordinary, and one often finds the meat portion of a dinner consisting of 'a nice Piece of boiled Beef, Ham and a Couple of Fowls, Peas and Beans, a green Goose roasted'.

The present big increase in meat consumption has occurred among the lower income groups; that there is room for further expansion can be judged from a study made some years ago by the Royal Statistical Society, in which it was shown that there was still a marked difference between population groups. The annual consumption of meat per person varied as follows:

Labourers	86 lb.
Artisans	107 ,,
Lower middle class	122 ,,
Middle class	182 ,,
Upper class	300 ,,

An increase in real wages would be followed by a considerable

increase in meat consumption, perhaps double, in the lower income groups. In 1928 a study in Cambridgeshire of the weekly consumption per family of beef, mutton, and pork showed that the variation was still present:

Unskilled Labourers . . .	9·1 lb.
Skilled Labourers . . .	10·2 „
Professional Workers . . .	16·1 „

There are probably parallel differences in consumption in the case of other live-stock products and of fruits and vegetables. If purchasing power increased people might eat more food; they would certainly substitute the dearer foods for the cheaper.

The amount and composition of the diet varies with different individuals, with different ages, with different occupations, and with different customs. Parson Woodforde's meat in 1790 would assuredly be many people's poison to-day! On the average, an ordinary person requires 3,000 calories a day to supply him with the necessary amount of energy to keep him going. A pound of bread gives 1,000 calories, a pound of butter gives 3,600. As prices of foods also vary, there is a considerable variation in the 'cost' of calories. In the following table, the price of 3,000 calories derived from various foods has been calculated on the basis of retail prices ruling in a South Midlands town in April. Man cannot live by bread alone, nor could any one obtain his 3,000 calories a day from tomatoes; there are other qualities in food such as protein content, vitamins, enzymes, and so forth, which are important, but energy content is the most essential. As the wealth of a country increases, the consumer is willing to pay more for his 3,000 calories and can afford to think of vitamins.

These figures show that it was not without reason that the English lived mainly on bread, the Scots on oatmeal, and the Irish on potatoes in the old days of poverty; these are by far the cheapest sources of energy. In general the energy cost of cereals is cheapest, live-stock products next, and fruits and vegetables dearest.

It is often said that the demand for agricultural products is inelastic or cannot be expanded indefinitely like that for industrial products. While it is true that there is a limit to the

Table XIII

The 'Price' of 3,000 Calories from Various Foods

Food	Retail price	Price of 3,000 calories	
		s.	*d.*
Tomatoes, imported	6*d.* per lb.	14	5
Cabbage, spring	2*d.* each	10	4
Veal cutlet, British	2*s.* per lb.	9	0
Beef, rump steak, British	1*s.* 10*d.* per lb.	8	4
Apples, Canadian	5*d.* per lb.	5	10
Lamb, leg of, British	1*s.* 8*d.* per lb.	5	0
Oranges, imported	1*d.* each	4	5
Eggs, British	1*s.* per dozen	3	6
Mutton chop, British	1*s.* 6*d.* per lb.	3	0
Milk, whole	3*d.* per pint	2	0
Cheese, Canadian	10*d.* per lb.	1	3
Bacon, Danish streaky	10*d.* per lb.	1	0
Potatoes, King Edwards	1*s.* 2*d.* per stone		10
Margarine, British	7*d.* per lb.		7
Bread, white	7*d.* per 4 lb. loaf		5
Oatmeal, fine and coarse	3*d.* per lb.		5

needs of the human stomach, it is obviously important to British agriculture whence the necessary energy is obtained—from 5*d.* on bread or from 14*s.* 5*d.* spent on tomatoes, from cereals or from live-stock products.

The British farmer has a market at his door for high-quality fresh foods such as milk, eggs, fresh beef, fresh mutton and lamb, fresh vegetables, and so on, which are partially protected by our situation as an island and for which the climate is suitable. The consumer is willing to pay for freshness. It is up to the farmer to make the most of this advantage.

Some 80 per cent. of the total sales off farms in Great Britain is derived from the sale of live-stock products, fruits, and vegetables. From every £5 note that the British housewife pays for food, 63*s.* is spent on meat, dairy products, poultry, and eggs.

But willingness to pay for expensive foods is not the same thing as capacity to pay for them. The market for the bulk of British farm produce depends on good incomes and wages. The greatest part of the country's wealth is derived from industry and commerce, and it is on the increase of that

wealth that the increasing demand for meat, milk, butter, eggs, fruit, and vegetables must depend. If that demand fails, then the benefits of our advantages are lost.

Seasonal changes in demand are of even greater importance to the farmer, since in many cases they do not coincide with seasonal peaks in production. For example, the peak in milk production occurs in April or May, whereas the peak of demand is nearer the middle of July, affected to some extent by the soft fruit season.

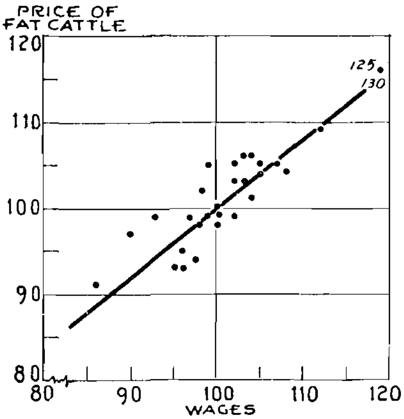

FIG. 3. The Relationship of the Purchasing Power of Wages to the Prices of Fat Cattle in England and Wales, 1893–1914 and 1920–5. (100 = normal)

But perhaps the most important to the British farmer, as influencing his immediate plans, are the year-to-year fluctuations in demand. So much attention has been paid to the effect of supply on price that there is a danger of losing sight of the importance of the demand factor in price determination. Very little work has been done on this aspect in this country, but what has been accomplished indicates its great importance. Though the total demand for food products may be relatively inelastic, changes in the purchasing power of the consumer would allow considerable elasticity of demand for any particular commodity except for staples such as bread. The above diagram illustrates the relationship of the demand factor, represented by the purchasing power of wages, and

the price[1] of fat cattle in England and Wales.[2] When the purchasing power of wages was above normal, the price of fat cattle rose; when the purchasing power of wages was low, prices of fat cattle were low. The extent of the changes is also indicated: when wages were 10 per cent. above normal, prices of fat cattle were 8 per cent. above normal. The effect of changes in the supply is not nearly so marked. For instance, the supply from the Argentine, the chief source of our imports, fell 21 per cent. between 1927 and 1929, yet the price of British fat cattle only rose 4·6 per cent.[2]

It is also true that when the purchasing power of wages increases, the price premium obtained by first quality home-produced beef over imported beef increases; when the purchasing power of wages falls, the difference in price between British and imported beef gets smaller. If wages are good, the wage-earner will buy fresh British rather than frozen imported beef.

The same relationships are shown between demand and the price of home-produced mutton and lamb, though it is not so marked for pig-meats, which are in general cheaper. But it is probably true that the demand factor is as important, if not more so, in affecting the prices of butter, eggs, fruits, and vegetables as it is for beef.

Variations in demand cannot be neglected in the consideration of the price fluctuations of many home-produced agricultural commodities. They have been neglected in the past mainly because they are difficult to ascertain and very little information has been available.

The third factor to be considered is the variation in supply, which appears to be the one which is most susceptible of control by the farmer. Yet on further examination this possibility is found to be very limited, since there are factors affecting the supply which cannot come under the control of the farmer, however complete his organization. The most important of these are natural conditions and the imported supply. The first raises almost insuperable difficulties in the

[1] Strictly speaking, this is the 'purchasing power' of British fat cattle, i.e. the value of beef cattle in terms of other commodities. This eliminates the fluctuations due to changes in the value of money.

[2] Murray, K. A. H., *Factors Affecting the Prices of Live Stock in Great Britain*, p. 72, Clarendon Press, 1931.

adjustment of supply to demand in agricultural production, even if one assumes demand to be relatively stable.

Variations in market supply, as distinct from production, can be attributed to four factors: (1) weather conditions; (2) planned production; (3) seasonal production; (4) market conditions.

The effect of these variations in bringing about price fluctuations is set out in all detail in the *Report of the Committee on the Stabilization of Agricultural Prices*,[1] and therefore requires little elaboration here beyond one or two examples.

The effect of the weather is, of course, more important for certain lines of agricultural production than for others. In general, crop production is more subject to variation than live stock. The following table indicates some of the variations in average crop yields in England and Wales during the last ten years.

TABLE XIV

Variations in the Average Yield per Acre of Various Crops in England and Wales, 1921–30

	Yield per acre			*Range expressed as per cent. of average*
	Maximum	*Minimum*	*Average*	
Wheat, cwt.	19·8	15·9	17·7	22
Barley, cwt.	17·8	14·0	15·5	24
Oats, cwt.	16·4	11·6	14·7	33
Beans, cwt.	17·7	13·8	16·2	24
Peas, cwt.	16·3	9·3	14·1	50
Potatoes, tons	7·2	5·3	6·3	30
Turnips and swedes, tons	14·3	7·4	12·3	56
Hay, cwt.	31·8	22·7	27·6	33

The variations for different areas are probably greater still, since a big drop in one area may be compensated by a smaller drop in another. On a single farm the variations may be greater still; the yield of a turnip crop may be 20 tons to the acre one year and a complete failure the next. The yield of fruit and vegetables varies greatly. In 1929 the average yield of plums was estimated at 26·7 lb. per tree; in 1930 it was 53·3 lb. A late frost may wipe out a year's return in one night;

[1] *Report of the Committee on the Stabilization of Agricultural Prices*, Economic Series No. 2, Ministry of Agriculture and Fisheries, 1925.

mild damp weather for a week or two at a critical stage may give disease and insect pests such a hold that the yield of a crop may drop to zero. Wet harvest weather may turn a fine quality crop into a worthless mess.

The Linlithgow Committee Report states that 'a few hours' sunshine in April will increase the quantity of Cornish broccoli ready to cut by as much as 25 per cent. . . . When it is realized that a difference of 10 per cent. in the daily supplies of perishables at a wholesale market may turn a relative scarcity into a glut, it will be appreciated how sudden and drastic may be the effect on prices of daily variations in supply throughout an otherwise normal season.'[1]

Similar difficulties may be met in live-stock farming, though they are not so pronounced and may be alleviated. A hot summer may burn out the pastures and milk yields may drop, but with the help of feeding-stuffs the worst may be avoided, though only at some unexpected increase in costs. Few other industries have to cope with such conditions, and it is not to be wondered at that the farmer has difficulty in adjusting supply and demand.

Then there are variations due to planned increases or decreases in production, i.e. the farmer's response to price, which usually results in an over-shooting of the market's requirements and a consequent under-estimation when prices fall. The pig cycle has been noted previously; other types of live-stock production show the same phenomena, though different lengths of time elapse before over- and under-production are reached. High milk prices relative to other prices stimulate milk production; low sheep prices result in decreased sheep numbers some three or four years later. With crops, the response is quicker; a rise in wheat prices is reflected in the next wheat crop acreage, and the effect is still marked a year later. A fall or rise in potato prices is followed by an immediate change in acreage.

Next there are the changes due to seasonal variation in production. In this country crop production is very seasonal, seed-time to harvest covering about six months of the year; one or two crops can be sown in the autumn, but throughout

[1] *Interim Report on Fruit and Vegetables*, Committee on the Distribution and Prices of Agricultural Produce, p. 25, 1923.

the winter growth is at a standstill. With grassland, in most parts of the country the growing season, and consequently the grazing period, is confined to six months. To a great extent, then, agricultural production is compressed into about half the year, yet the human stomach needs satisfying three times a day, every day throughout the year. Here again certain types of live-stock production can be carried on more or less continuously; the feeding-stuffs can be stored and spread out over the year. Live-stock farming may be regarded as a way of overcoming this wide discrepancy between crop production and demand. The cost of this out-of-season production is of course considerably greater than that where more natural seasonal production is carried on. For example, the difference between winter and summer milk-production costs are reflected in the price paid for each under the N.F.U. scheme, 1*s.* 6*d.* per gallon for winter and 1*s.* for summer.

Finally, there are variations due to market conditions, really another of the farmer's reactions to price. A good market price one day may bring out an increased amount of produce the next week; low prices may result in a shortage. This often arises as a result of misinformation or a lack of information regarding market conditions. It is well indicated in the instance of potatoes. When a short crop occurs, usually after a bumper crop with low prices in the previous year, prices at the beginning of the season appear favourable compared with the price of the last crop; potatoes are rushed on to the market; the price is depressed in the early autumn, subsequently emphasizing the shortage and raising more than is necessary the end-of-season prices, the benefits of which go to imported supplies.[1] Conversely, when a big crop comes along, the price is low, and the farmer withholds his potatoes for a later rise which never comes; instead, the end-of-season price is unduly depressed. Unnecessary fluctuations in market supplies are brought about by inadequate market news. So regular is this misinterpretation of the season's market conditions that it can be used for estimating in advance the seasonal movement in potato prices.

[1] Murray, K. A. H., *Seasonal Variation in the Price of Main-Crop Potatoes*, Occasional Notes, No. 13, Agricultural Economics Research Institute, Oxford, 1931.

A further factor causing variations in market supply is the state of the farmer's finances. If money is short, a large part of the crop is turned into cash as soon as possible after harvest. In times of depression there is apt to be a concentration of supplies on the market early in the season.

Of the factors causing price fluctuations, supply offers the greatest opportunity of control by the farmer, but it must be recognized that even here his power is very limited.

The farmer to-day desires to control supplies in order to raise prices and to stabilize them at the higher level. Restriction of supply in order to remove the disequilibrium of supply and demand is a means to that end. What are the prospects of his being able to achieve a rise in price through control of supply, and is control of market supply sufficient?

Let us assume that the farmers producing any one commodity are 100 per cent. combined; this is no extraordinary premiss, since the purpose of the 1931 Agricultural Marketing Act is to allow a majority of producers to overrule a minority and compel them to 'co-operate'.

The first grave obstacle for the farmers in this country is

TABLE XV

*Home Production and Imports of Farm Products in 1930**

	Total estimated supply	*Per cent. of total supply*		
		Home-produced	*Empire*	*Foreign*
Wheat and wheat flour 000 cwt.	143,703	15·8	35·6	48·6
Barley . . . ,, ,,	31,883	52·3	1·8	45·9
Oats . . . . ,, ,,	54,944	82·5	1·1	16·4
Maize . . . ,, ,,	34,165	..	18·0	82·0
Potatoes . . . ,, ,,	94,962	93·9	1·3	4·8
Beef . . . . ,, ,,	22,190	52·3	4·3	43·4
Mutton and lamb . ,, ,,	10,725	40·5	38·3	21·2
Bacon, hams, fresh pork ,, ,,	16,107	34·9	5·1	60·0
Butter . . . ,, ,,	7,623	10·5	40·3	49·2
Cheese . . . ,, ,,	3,760	17·2	71·9	10·9
Eggs . . . . millions	5,956	46·5	11·8	41·7
Wool. . . million lb.	893	12·4	70·9	16·7

* Maxton, J. P., *Farm Products and the Tariff*, Occasional Notes, Vol. 1, No. 18, p. 3, Agricultural Economics Research Institute, University of Oxford, April 1932.

that more than half, probably two-thirds, of the nation's food-supply is imported. The foregoing table indicates the proportions of certain commodities, the most important from the British farmer's point of view, which were home-produced and imported in 1930; only in the case of two commodities, oats and potatoes, is more than three-quarters of the total supply home-produced; there are only four commodities of which more than half is home-grown.[1]

The supply of a large part of the nation's food is therefore beyond the control of the farmers, however fully organized; price stabilization is dependent on State regulation of imports. The State has expressed its willingness to undertake a degree of control of imports, where the producers undertake to 'reorganize', presumably for marketing purposes. The Agricultural Marketing Act of 1933 definitely signifies the Government's intentions in this direction, though these powers are restricted by the Ottawa and other Agreements and are to be exercised by the President of the Board of Trade in consultation with the Minister of Agriculture, and with due regard to treaty obligations.

For the next two years, little control of Empire supplies seems possible. The reluctance of Australia and New Zealand to operate voluntary restriction schemes for butter may be taken as indicative of the position. Now Empire supplies account for about 40 per cent. of the total supplies of butter and of mutton, and for 70 per cent. of cheese and of wool.

Does this joint control by the Government under the new Act and by the home producer provide the necessary complete control of supplies? The answer must be that control is still too incomplete to guarantee in fact any particular price to the home producers through supply control. Some agricultural products not produced in this country are competitive with British produce. These would not come under control, since there would be no complementary home reorganization. Apple-growers might reorganize and obtain the Government's control of apple imports, with a consequent temporary raising of prices. But would not this immediately encourage the increased importation of oranges, bananas, and other fruits not grown in this country?

[1] This table does not include milk, of which almost 100 per cent. is home-produced, fruits, or vegetables.

The following diagram may help to bring together the various points raised in the foregoing discussion of the British farmer's chances of controlling price fluctuations.

The causes of these fluctuations were set down as three: changes in the value of money, demand, and supply. The first two are to a great extent just one, since changes in the

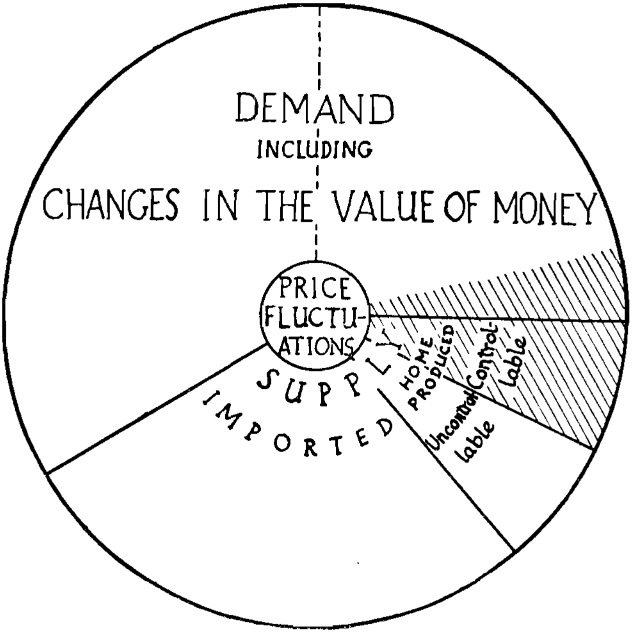

FIG. 4. The Causes of Price Fluctuation and the Farmer's Sphere of Control

value of money work through the demand factor—a great many of the changes in demand, particularly of the short-time changes, being attributable to money fluctuations; long-time changes are somewhat distinct, such as those arising from gradual changes in the distribution of the national income. A change in distribution costs, though unlikely to be rapid, might be considered as a non-monetary demand fluctuation. These two factors together cause a large part of the commodity price fluctuations which the farmer hopes to control, and, except for a portion of demand, they are beyond his regulation.

Then there is the third factor, supply, which consists of both imported and home-produced goods. The imported supply is beyond the control of the farmer, and, owing to definite treaty agreements, largely outside government control, so this narrows down the farmer's control area to a smallish segment of the circle denoted by the shaded area in the diagram.[1] Of the home supply, a large part is subject to variations due to factors such as weather, disease, &c., which are beyond the control of the farmer. In general, the control that rests with the farmer covers only a small section of the total factors causing price fluctuations.

[1] The areas of these segments vary, of course, with different commodities depending on the elasticity of demand, the proportion imported, and the variability of yields, &c. Where there are practically no imports, e.g. potatoes or milk, the farmer's segment increases. So far as home production is concerned, the uncontrollable factors affecting yield may cause greater supply fluctuations than the controllable one, acreage, e.g. potatoes. The diagram gives an average representation. The shaded area of the demand segment represents the farmer's possible influence on distribution costs.

CHAPTER V

THE PROBLEM OF PRODUCTION CONTROL

If we assume, in spite of the difficulties raised in the last chapter, that control of market supply may be achieved, is this in itself sufficient to bring about that desired adjustment of supply and demand, which, it is claimed, the competitive system with price as its regulator has failed to provide? If the breakdown of the price system has caused the crisis, how far must schemes of regulation go in order to control price?

Experiments have been made by agricultural producers more extensively in other countries than here to regulate market supplies so as to control price.

An outstanding example is the Stevenson rubber restriction plan, which was essentially a plan for raising prices by limiting production. Voluntary restriction proved impracticable. The compulsory export restriction scheme, sanctioned by the British Government, also failed, since it did not cover all sources of supply nor prevent the invention of rubber substitutes and the reclamation of old rubber. A short-lived period of high production in other parts of the world left the rubber market with stocks estimated to-day at 650,000 tons, which is more than a whole year's output.[1]

Brazil has carried out a series of valorization schemes for coffee, operating through government purchases of coffee. Up to 1927 the system only stabilized prices, and the rises which occurred would have taken place without artificial means. But the Coffee Institute made the mistake in 1927–8 of financing a heavy crop at too high a level. Prices dropped, and in 1931 stocks of coffee had to be destroyed. A new and complete system of control was inaugurated in 1931. Price had been allowed to guide production, and the situation was made worse. The Brazil stabilization scheme was undertaken without effective control even of home supplies and without due consideration of the fact that Brazil had no effective monopoly, and that restriction there would mean increased production in other countries.

[1] Memorandum No. 39, Royal Economic Society, January 1933.

Control of nitrate supplies has been attempted several times in Chile; conditions were exceptionally favourable, since there were apparently no other extensive sources of similar raw material. Between 1884 and 1927 eight associations of producers were formed at different times, but none lasted. In 1927 price agreements were abandoned. The 'reasonable' or 'fair' prices of the producers had curtailed demand and encouraged the manufacture of other nitrogenous fertilizers.[1] The temptation to misuse control had proved too strong.

The Federal Farm Board in their attempt to stabilize prices accumulated large stocks which only served to depress prices still farther on the world market. Knowledge of the existence of large stocks which might at some time be placed on the market had an adverse influence on price.

The Grain Stabilization Corporation started by holding off the market 65 million bushels of the 1929–30 wheat crop. When the new 1930–1 crop came in, further purchases were made by the Corporation to maintain the price (No. 2 Red Winter wheat were then about 93 c. per bushel). The Corporation made but few attempts to sell their holdings, and by June these amounted to 257 million bushels, or approximately 30 per cent. of a year's crop. Prices were still falling on the world market, though held at a higher level in the United States. Exports declined and the United States stocks increased still farther. Stabilization of prices was not continued for the 1931–2 crop, and by the time the grain came freely on to the market the price was down to about 50 c. per bushel. The wheat held by the Corporation is estimated to have cost them about 90 c. per bushel.

The original intention of the scheme was to prevent a price decline and improve the returns to the grower; when it failed to do this, and heavy losses were entailed, it was claimed that the pegged wheat price was primarily a credit measure, and not an operation to improve farm prices.

Undoubtedly the Board were unfortunate in having begun operations at a moment when prices in general were beginning

[1] In 1929 agreements were entered into with producers of synthetic nitrogenous products and the scope of control enlarged. Prices were lowered following these agreements, and it appears as if the combine were concentrating on increasing efficiency rather than price-raising.

to fall. By maintaining prices, they maintained production and intensified the gap between production and consumption. No serious attempt was made to control production and prevent price from having its usual influence. Requests for a voluntary reduction in acreage proved of no avail; the key position of price was impregnable.

The following quotation is taken from the conclusions of the Food Research Institute of California, whose *Wheat Studies* form the most reliable and authoritative information found for any one commodity; regarding the stabilization operations of the Federal Farm Board through the Grain Stabilization Corporation, they state:

'From the standpoint of agricultural policy, the experiment in wheat price stabilization was unfortunate. It is a precedent in the wrong direction. The problem of surplus of agricultural products is not to be solved by holding or pegging.'[1]

Even more direct State control of market supply is not always successful. In Estonia the Government undertook to purchase the rye grown by the farmers, in order to increase home production. Farmers began to sell their rye rather than use it for fodder, and home requirements were almost immediately covered to the extent of 100 per cent. Production increased, and the Estonian Government now have on their hands stocks equivalent to about two years' requirements. The loss on the State's transactions already amounts to 2,800,000 kronen. The grain monopoly has failed owing to the mismanagement of price control; supply and demand are now more out of joint than when the scheme was started.

The schemes to regulate the price of these agricultural products by controlling supply failed because they did not go far enough. Though they set out with the express purpose of controlling price by regulating supply, they still permitted the regulation of supply by price.

Some of them failed also because supply control was not complete or because the demand was not sufficiently inelastic; there were too many sources of production and alternative commodities. But even if monopoly had been achieved

[1] *The World Wheat Situation 1930–1*, Wheat Studies of The Food Research Institute, vol. viii, No. 2, p. 166, Stanford University, California, December 1931.

and there had been no substitute products, the schemes would have defeated themselves, since no steps were taken to control production itself. No attempt was made to supersede the regulation of production by price with some other type of control; any success in raising prices was eventually vitiated by allowing price once again to bring about increased production. If supply is to be restricted to bring about a readjustment of supply and demand, control of production is a necessary accompaniment.

Up till now the fundamental principle of all economic development has been the regulation of production by price. What other methods are there?

Attempts have been made in several countries to achieve voluntary restriction of production, but they have been singularly unsuccessful, especially where prices were being controlled at a high level. The American Grain Stabilization Corporation, with an intensive campaign, urged a reduction of the spring-wheat acreage in 1930, but the net reduction was only 2 per cent.; winter wheat plantings for 1931 as a whole were not reduced, and though in a subsequent year the acreage declined, the Federal Farm Board reported:

> 'The experience with these attempts to secure definite percentage reductions in acreage indicates that farmers are apparently not yet ready to follow advice when administered in this form. . . . Many farmers hold a theory that their neighbors are likely to increase their acreages whenever general advice is given to reduce, with a view to cashing in on higher prices that may be in prospect.'

Any scheme for the reduction of output must contain some element of compulsion; voluntary action and advisory work have proved fruitless except in a very few extraordinary cases.

Another method is an all-round percentage reduction. This was tried by the Egyptian Government from 1926 until 1929, under a law prohibiting the planting of more than one-third of each holding in cotton. But the Government's attempt to equate supply and demand was unsuccessful; greater care was taken in cultivation, yields were better, and production did not decline materially, while demand eased. In six years, production totalled 9·4 million bales, while consumption totalled only 5·7 million. Official interference failed to prevent the downward price trend.

Table XVI

*Production, Consumption, and Price of Egyptian Cotton, 1926–31**

	Production in million bales of 500 lb.	*Mill consumption of Egyptian cotton million bales*	*Price of Egyptian cotton f.g.f. Sak d. per lb.*
1926 . .	1·6	0·9	14·00
1927 . .	1·7	1·0	17·75
1928 . .	1·2	1·0	19·45
1929 . .	1·6	1·0	14·15
1930 . .	1·7	0·9	7·70
1931 . .	1·6	0·9	7·10

* Figures from *The Economist*, October 29th, 1932.

In countries where conditions vary and where agriculture is not homogeneous, the all-round reduction method is obviously extremely uneconomic; the most efficient producer is penalized to the same extent as the inefficient, and land suited to the crop is abandoned to the same extent as ill-suited land. It is the sub-marginal producer who ought to disappear—the man who cannot produce at the market price.

This latter principle finds considerable support in America, where there is a move for the State to buy up sub-marginal areas for afforestation or other purposes.

Another scheme is the allocation of production quotas under the centralized control of the producers; it is advocated in various forms in the United States and it is being relied on in European countries whose export trade has been suddenly cut down. Here again the method is more likely to succeed in regions where one crop is predominant. In America, where the wheat or cotton areas for which allotment quotas are proposed are more or less well-defined regions, control of production through marketing control may be more feasible, in spite of the obvious administrative difficulties.

Denmark, with characteristic ingenuity, has adopted a production allotment system adapted to her special conditions. The interdependence of dairying and bacon production being fundamental, pig quotas had to be related to dairying. The method of allocation is fixed as follows:

5 pigs to be raised per farm, and of the remainder:

two-fifths to be based on taxable land capacity (calculated on the basis of 1 pig per 1,000 kr.);

two-fifths based on skimmed milk, butter-milk, &c. (calculated on the basis of 1 pig per 2,000 kg. skimmed milk);

one-fifth based on previous production (calculated on the basis of one-seventh of the number of pigs raised in 1932).[1]

Allocation of quotas was facilitated, and probably made possible, by the co-operative organization, already firmly established, which provided the necessary bottle-neck for control.

An examination of the various proposals for production control in foreign countries shows an increasing degree of State interference. Producer control in agriculture tends to be unsatisfactory and ineffective, since effective curtailment of production requires enforcement by penal measures.

Can production be controlled through marketing in this country, and if not, what is the alternative?

Apart from the supposed extreme individualism of the British farmer, there is a special obstacle to the control of production by marketing, and that is the diversity of British farming. If the various commodity marketing boards get busy allocating quotas, the whole balance of the farm will be upset. Pig quotas will bear no relation to grain or butter production; mutton and lamb quotas will be fixed regardless of any interdependency in the farming system of sheep, roots, and barley. If the harvest weather breaks and the farmer has a lot of poor grain on his hands, he cannot increase his hens, pigs, or cattle because his egg quota, his contract for pigs, and his allotment of fat cattle are fixed. Even if he stored the grain, he would have no guarantee of greater allotment quotas next year.

It is plain that in a country where mixed farming prevails a quota scheme cannot be put into force for one or two products only, since that would only increase the instability of the supplies and prices of other commodities. For instance, stabilization of the bacon industry will probably increase the short-time fluctuations on the pork market. Production control, to be effective, must cover all products. Would not

[1] *Weekly Dairy Produce Notes*, vol. iv, No. 52, p. 7, May 26th, 1933.

the multiplicity of producers' control boards and their co-ordination present an almost superhuman task? Is it humanly possible to enforce control by a series of boards on 500,000 farms, each of them producing varying products in varying proportions for each unit? Even if control on these lines is possible, may not the inflexibility and irritation of the system become intolerable?

Such control would stereotype British farming to a most costly degree, and under it the elimination of the marginal or inefficient producer would be almost impossible. If initiative and freedom of enterprise disappear, there will surely be a marked retrogression of farming. The reorganization schemes undertaken principally to impose 'efficiency' on farming will have resulted in lowered standards.

There is another alternative to control of production by boards of producers, namely complete State control. The immediate difficulties in attempting this are so great that a discussion of its possibilities is not of much practical value. Before the State could assume such control, it must acquire a far greater knowledge of actual production conditions than is at present available.

There are various ways in which the State could act, but the most fundamental step would be through control of the land, of the basic factor in agricultural enterprise. The State could schedule agricultural areas according to their suitability for this or that type of production; this area for wheat and that area for hill sheep, and so on. Not only would the physical factors determining production have to be considered —that would be comparatively easy—but also the economic factors. Special markets, transport facilities, storage, processing factories, special labour facilities, and the like, all play their part in determining the localization of production. Climate, soil, and topography are not the only factors to be considered, though a further and close study of these conditions is most desirable.

Mixed farming systems present untold difficulties for State control. Before State control of production can approach the realms of practicability there would have to be almost complete reorganization of British farming on a more specialized basis.

The State would also have to face the question of manage-

ment. Management ability is probably one of the greatest variables in agriculture. Suppose, for argument's sake, that the State had been able to decide that 50,000 acres of land in Wiltshire would be most economically utilized if used for dairying; on what basis would it be divided up? One farmer might have his hands full with 10–20 cows, while another, Mr. Hosier for instance, might find that 500 cows did not occupy his whole time. Under State control would Mr. Hosier have been allowed to add 4,000 hens to his milk business as a part-time job? There is no way in which the State or any board of producers can establish what is the economic unit for any type of farming, owing to the variation in the human factor.

It may be, and is, argued that the State might allow the system to work as it does now, but that it might control production by production allotments or by all-round reductions. But the problem of what regions or what individuals should be eliminated in controlling the supply of any one commodity remains unanswered. It would be infinitely more difficult for the State than for the competitive price system to eliminate the inefficient producer, and that is what production control must achieve if it is to be an economic success.

If milk production had been regulated twenty years ago and the output of all then existing farmers had been controlled, new men with revolutionary and cheaper methods would not have been allowed to start dairying at all. The danger of retarding progress is very present. Already hop growers are demanding an amendment of the Hops Marketing Scheme by the addition of a quota so as to prevent the output of hops being augmented. In other words, existing growers are asking for a complete monopoly which would prevent new men becoming producers of hops. With so uncertain a political outlook for the restriction of imports, it is even more necessary that no handicaps should be placed in the way of improving and cheapening production in British farming.

Agricultural production as at present organized offers more obstacles to State control than any other industry owing to the exceptional complexity of its organization. Is it likely that the farmer would be willing to submit to such control? We have stressed only the economic obstacles to State control of

production, but there are other aspects of the problem, such as the loss of initiative and individuality, various political and social considerations which must weigh heavily in the balance, but which have not been stressed here lest they might prejudice the putting forward of the economic aspects.

If the producer is unwilling to undergo control of production, or if it is not feasible in agriculture, the solution is to return to the old system of guidance of production by price, not so blindly as in the past, but with the assistance of more market intelligence and forecasting and with a better knowledge of the working of the monetary system.

This survey of the theoretical problems of reorganization may be illustrated by taking one of the reorganization schemes proposed under the Marketing Act which has the greatest prima facie prospects of success, and examining it briefly in the light of the last few chapters, particularly from the point of view of price and the guidance of production.

Milk offers greater possibilities of farmer control than many other agricultural products in this country. There is already a considerable degree of organized marketing in the milk business, and if control schemes can be made to work anywhere it should be here. The liquid milk market has natural protection, and producers have the benefit of monopolistic conditions for that part of their output. On the other hand, milk is a commodity for which the demand is relatively inelastic: at all events evidence from other countries points to this conclusion. Any change in supply causes a marked change in price owing to the inelastic demand.

Control of milk prices can be justified if it eliminates undue disturbance of production. Suppose that for some fortuitous reason, such as an exceptionally good pasture season, milk yields rose suddenly, the natural result would be a price decline; the increase might only be temporary, it might start an undesirable decrease in production and market demand might be under-estimated; if price were controlled and the surplus were taken off the market by diversion of 'liquid' milk to the factories, the unexpected increase would not start a price reaction and the subsequent disturbance in production would be avoided. The difficulty is, of course, to decide whether the changed conditions are temporary or not.

The method suggested is to take a levy from the protected liquid milk producers and use it to subsidize the producers of milk used for the manufacture of milk products which are open to overseas competition, and thus afford a limited protection to this side of the industry. The principle might be justified if butter- and cheese-making could be regarded as infant industries which required protection while they were being built up. Similarly, the burden of price fluctuations might perhaps justifiably be passed on to the protected pork market if this were a means of expanding a young bacon-curing industry. But in neither case is the plea justified.

It might also be justified if, for a time, the prices of manufactured milk products were so low relative to liquid milk as to threaten a large decrease in production.

It may be assumed that the scheme of the Reorganization Commission for Milk[1] was intended primarily to benefit milk producers in this country. Though the recommendations for securing a safer milk-supply would benefit the consumer, the first aim of the scheme was a strengthening of the producers' position. The farmer accepted it because he hoped to receive a better price, or at least to be assured of the stabilization of prices at their recent level, which has been higher than that of most other agricultural products.

There are several ways in which the better returns could be achieved:

1. By more efficient methods of distribution.
2. By stronger bargaining power on the farmer's side.
3. By getting better prices for manufacturing milk.
4. By increasing the price of liquid milk to the consumer.
5. By increasing the consumption of liquid milk.
6. By reducing costs of production.

The possibilities of the first—more efficient distribution—are limited because the commission contemplated that distribution should be left in the hands of the existing trade. They anticipated that in the course of time the effect of their proposals would be to reduce the number of retail distributors and thus effect economies. This is, however, not of immediate

[1] *Report of the Reorganization Commission for Milk*, Economic Series No. 38, Ministry of Agriculture and Fisheries, 1933.

importance and would require a guarantee that the benefits of the distributive economies would be passed on to the farmers.

The second—stronger bargaining power for the producers to obtain a larger share of distribution profits—is an unknown quantity. It depends to a great extent on the relative proportions of milk bought at liquid prices and at manufacturing prices. This is at present unknown.

The third—better prices for manufacturing milk—presents two possibilities. Higher prices might be charged for milk manufactured into products of higher value than butter or cheese, such as condensed milk, chocolate, &c. This, however, does not at present offer great promise. According to the Report, only about 3 per cent. of the present supply is used for condensed milk, milk powder, and other milk products. Only 0·2 per cent. is used for products whose values are estimated at 20 per cent. higher than that of milk powder. There is little hope of making an appreciable difference to the average price by this means. Better prices for manufacturing milk must, in the main, depend on the regulation of imports, which is beyond the control of the farmers' organization. In any case the immediate prospects are not rosy, as the Ottawa Agreements prevent for three years the imposition by the British Government of any restriction of dairy produce imports from the Dominions, who provide the most serious competition. The only hope of restriction lies in 'Gentlemen's Agreements'—a doubtful prospect.

The fourth method—increasing the price of liquid milk to the consumer—is hardly feasible. At the present time retail liquid milk prices are about 77 per cent. above pre-War, while the average retail level of all food prices is only 23 per cent. above. The Report did not envisage this way of increasing the producers' prices.

The fifth—the possibility of increasing the consumption of liquid milk—does seem practicable, but here again the increase must be a slow long-time one and so is of little immediate importance.

Finally, there is the possibility of reducing costs of production and thus increasing farmers' net returns. It was pointed out by the Interdepartmental Committee on Milk

Production[1] that this could be done by the following means:

(*a*) Improved herd management, with special attention to such points as length of lactation period, better distribution of calving dates, increased yields, more economical and methodical feeding, &c.

(*b*) Veterinary help, and the eradication of those diseases which to-day result in annual losses of several million pounds.

(*c*) Improvement of dairy bulls and the grading up of stock.

(*d*) Pasture improvement, both in quantity and quality.

(*e*) Labour-saving machinery and equipment, the arrangement of farm buildings.

(*f*) Account-keeping.

(*g*) Reduction of wastage and loss due to mishandling, souring, &c.

These again are long-term measures, and in any case it is doubtful whether a board of producers will insist, to the annoyance of the producers who elect them, upon substantial alteration and improvement in methods.

Such, then, are the possible sources of increased returns to milk producers as a body. The main issue appears to lie in increased bargaining power and in the benefit that would accrue to the producers of having control over what is called the 'surplus', i.e. milk produced in excess of liquid requirements. So long as there is a wide disparity between 'liquid' prices and 'manufacturing' prices, this will remain the vital issue. The former is a price obtained in a protected market while the latter is one in competition with imports. The objective of the scheme is for the producers, once they have control of the 'surplus', to get the full return for every gallon of milk sold on the liquid market in the expectation of securing larger total returns to the producers on the whole output of milk.

Assuming that the scheme is successful in obtaining a larger total return to producers, two main problems then arise, the first dealing with the total returns and the other with the competing interests of the various types of milk producers.

[1] *Report of the Interdepartmental Committee on Milk Production*, Cmd. 483, 1919.

Will not a larger return to milk producers as a whole result in increased output? And if so, what can the central organization do then? There are three possibilities:

(*a*) It may leave the retail liquid price as it is and put all the increased output into manufacturing milk, and if the price disparity is continued, this will result in lower average per gallon returns to producers.

(*b*) It may raise retail liquid prices to consumers to offset the increase in the quantity of milk sold at manufacturing prices, but as this might easily result in decreased liquid consumption, it is not feasible.

(*c*) It might reduce liquid prices in the hopes that an increased supply sold at slightly lower prices might make a larger total return for liquid milk in order to offset the increase in milk sold at manufacturing prices. It is not, however, at all certain that a fall in retail prices would increase the demand substantially.

Whichever of these three paths is taken, it is obvious that a return has been made to the old system of control of supplies by price; an increase in price resulting in an increase in supplies. Clearly, the only way to defeat the effect of price is to go still farther and to control production. But how?

This brings up the second problem arising from this larger return to the producers—the competing interests among producers themselves. Probably no other industry in agriculture shows such a well-defined cleavage as the milk-producing industry. One section has developed on a more or less intensive scale with relatively high costs in response to the higher price of liquid milk, while another section has developed to produce milk cheaply almost entirely for manufacture. Under the Commission's proposals, part of the high price obtained on account of the protected liquid milk market is to be used to bribe the manufacturing milk producer to keep off the liquid milk market. Is not this almost bound to lead to an increase in the production of summer milk, i.e. the manufacturing milk which is to get the bribe? In addition, under the present proposals, as no compensation would be paid to milk producers making butter or cheese on the farm, would they not change their practice and sell milk off the farm, so releasing a hitherto untapped supply of liquid milk?

Assuming that an increased return to farmers in the outlying cheaper-production areas has stimulated production there, has not a return been made once more to the regulation of supplies by price, when the attempt was to be made to control price by regulating supply? Again it is evident that the step which must then be taken is the control of production. How is this to be done?

Voluntary reductions of production of any commodity having proved unsuccessful in most countries where they have been tried, that method may be ruled out as impracticable; there must be some element of compulsion in any scheme. What means are open to the central authority for checking any increase in production which might arise from better prices? First, it might stipulate that any increase in production in an area would necessitate taking away the compensation payment. But remember that by the organization schemes proposed those very producers have been deprived of the chance of finding a better market; there is no longer any inducement for the city buyers to tap the cheap milk areas. Distributors buying milk for liquid sales outside the producing region have—under the scheme as it stands—to pay to the producers' organization the price of the region where the milk is produced or that of the region where the milk is sold, *whichever is the higher*. To deprive certain producers of the compensation payment and at the same time to exclude them from a better market would appear to infringe all principles of equity.

The second method would be to compel an all-round reduction of output. This is of course uneconomic, the efficient producers suffering the same cut as the inefficient; it is the marginal producer who should disappear when production is to be curtailed. Any scheme of control which neglects this principle must tend to lower the general standard of efficiency.

Official bodies cannot wipe out the less efficient marginal producers as competition normally does, and consumers will suffer. Every one knows that the cost of milk production varies even in the same region. Imagine two groups of farmers with similar transport charges to the market, whose costs differed by 2*d*. a gallon. Ought the whole of the output of the cheaper

producing farms to be disposed of first, so that the public should have the benefit of cheap milk; or ought all the farmers in both groups to have an equal quota of the market?

A third method would be the allotment of individual production quotas by the central authority. Much the same difficulties would arise; yet some such method appears essential as soon as an organization sets out to control supplies in order to obtain a higher price. Under a system of regional price pools, the difficulty of obtaining any agreement on the basis of allotment would be almost insuperable owing to inter-regional competition.

Some of the proposals recently discussed on the platform and in the press seem to have been based on the assumption that farmers produce mainly one, or possibly two, commodities and sell their whole production off the farm. The term 'mixed farming', however, should remind the originators of these ingenious paper schemes that such simplicity does not exist on most farms. If individual quotas are to be allotted, for milk and for other commodities, a farmer may be tied with quotas for the various products which he has to sell, regardless of the balance between the different branches of his farm. It is essential to bear in mind the fact that control of production through marketing quotas where different products are sold off the same farm presents problems that do not arise in industrial cartel organizations. Clearly producers' control of individual products demands a co-ordinating organization which would study the shifting of demand for one commodity as against another, and indicate fresh allocations where these appear to be necessary. The difficulties confronting the effective working of any such body are evident to any one familiar with reconciling conflicting interests. But the problem will have to be faced if the various schemes of control are carried into effect.

CHAPTER VI

REORGANIZATION ON THE FARM

In the midst of the cries for reorganization which are arising from outside the industry the farmer has not been sitting back waiting for something to happen. Reorganization has been going on, year in, year out, to meet changing market demands.

The critics of the British farmer are, in many cases, the same persons who deplore the disappearance of the agricultural labourer and the laying down of arable land to grass, not recognizing that these may be indeed signs of efficiency and that the internal organization of farming is continuously changing. Changes in the size of holding, the system of tenure, and the types of farming have been going on during the last hundred years. They are definite, though they are slow, as they must be from the very nature of farming; food habits change slowly in most cases, while agricultural production is a slow process. A false step in a rotation may take years to wipe out; a demand for more milk cows takes several years to meet. One cannot quarrel with the farmer for being cautious in his reactions to price.

After a long period of agricultural readjustment to suit a market demanding supplies of fresh meat and milk, the War broke out, and the farmer had to meet a completely different set of circumstances. Maximum output per acre measured in money had been the goal of farming; in a month the national demand was for the maximum food output, measured in terms of calories—a very different aim. Cereal production, yielding more calories per acre than meat or live-stock products, was encouraged, and grassland was ploughed up. Our insular position and our dependence on imported grain supplies made it imperative that the change should be rapid; in continental countries the change-over was neither so extensive nor so fast, for in Europe grain production had never lost ground to the same degree as in England.

Six or seven years later there was another revolution in the English market: the farmer had to switch over once again to

pre-War conditions. There was a brief pause after the War before the full blast of renewed competition was felt. But only a brief one, after which the British farmer had to face increased overseas competition from countries whose live-stock production had been stimulated when ours decreased. Without any tariff shelter from the storm, he started again to make the necessary readjustments. These have been going on ever since.

The War has been over for fifteen years, but the effects of the disorganization in agricultural production which it engendered are still felt. The requirements of the belligerent countries were in the main supplied from America, the Argentine, and the Dominions. There was a vast increase in the area devoted to agriculture, principally in the production of grain and foods of high calory value, in those countries and in the tropical sugar-growing lands. War conditions induced a more rapid expansion than would have occurred in more normal circumstances, and tended to upset the balance of world agriculture as between cereal and live-stock products.

When the War was over, production was everywhere maintained at a high level. Europe, after a short interval of disorganization, began to make up the losses due to military operations and war conditions. The rapid drop in prices between 1920 and 1925 did little to stem the rising tide of production. In Great Britain, one of the few countries with an open market, economic conditions were especially hard for farmers. The growing use of the internal-combustion engine enabled the overseas grain producer to handle a larger acreage without a corresponding increase in costs, in spite of high wages. Then came a tremendous increase in the use of power machinery, including the combine harvester, in the United States, Canada, the Argentine, Australia, and elsewhere.

Under the influence of lower production costs, the area of grain expanded rapidly. In the United States, for example, wheat acreage, which had shown a fall in previous years, increased by 3¾ million acres between 1925 and 1929. In the prairie provinces of Canada during the same period the area of wheat expanded by 4½ million acres. The mechanization of farming and of transport in towns and cities had another effect on the volume of grain entering the markets for human food.

In the United States the increasing use of motor transport is said to have driven 9,000,000 horses and mules from the streets of cities and from the farms, and to have released about 25 million acres of land from producing feed for these animals, thus allowing a 13 per cent. increase in the land available for other crops.

In Great Britain there has been a reduction of over 400,000 farm horses in the last thirty years, which, allowing 7 qrs. of oats per horse for a year, would have warranted a decrease in the oat acreage by about 600,000 acres. In cities, the replacement of horses by the petrol engine has closed another, perhaps even larger, market. To look at it another way, from four to five acres of land are required each year to maintain each farm horse.[1] On this showing a reduction of 400,000 horses has released about 1½ million acres of agricultural land in this country for other purposes. The process has been spread over a considerable period, and farm production has adjusted itself accordingly.

Scientific achievement, in directions other than power and transport developments, also played their part in expanding overseas production. Frost-resisting wheats opened up new areas of wheat land in Canada; drought-resisting wheats made it possible to grow the crop in areas of low rainfall in Australia. In April 1933 the conquest of Black Rust, which takes annual toll of scores of millions of dollars of Canadian crops, was announced, and it is only a matter of two or three seasons before its effect will be felt on the market in increased Canadian supplies. The study of the limiting factors in crop production has led to the discovery of methods for counteracting those factors; for example the use of fertilizers, especially of superphosphates, has considerably improved the yields of grain on the poorer soils, particularly in Australia and South Africa.

The burden of surplus cereal production and consequent low level of cereal prices fell first on the grain-growers themselves, but now, after a lag of some years, it weighs heavily on the live-stock farmers. Low prices for cereals have driven an increasing number of farmers to turn to live-stock production. The live-stock farmer has therefore not been immune

[1] Wyllie, J., *The Cost of Horse Labour*; Report No. xv, Department of Economics, South Eastern Agricultural College, 1932.

from the effects of mechanization and of the advance of science, though the danger was not evident during the immediate post-War period, when herds and flocks were being gradually brought back to the pre-War level.

The competition from the new countries was certain to be most severely felt in a settled country such as ours, where farming units and organization, designed primarily for live-stock production, were generally less easy to change in order to take advantage of the newly available power for cereal production. Yet, in spite of low prices and a shortage of capital, changes have been made to a surprising extent. While there has been little opportunity to take up new crops and live-stock —excepting sugar beet—there has been a marked change in the form of product sold: cereals, instead of being sold off the farm, have been fed to stock and sold in the form of various live-stock products, e.g. dairy products, eggs, &c. The farmer has made the most of the flexibility which certain types of farming provide.

Not all farms have shown great internal reorganization; the amount of change has probably been greatest in the most depressed areas. The dairying districts and the better-class arable lands are substantially unaltered. Even in these changes have taken place: on the dairy farm the milking-machine is taking the place of the hand-milker—10 per cent. of the dairy cows in this country are now milked by machine; in the arable districts tractors are displacing horses and labour. Improved implements for cultivation and harvesting are being introduced on grass and arable farms and in market gardens.

Foreign competition has been felt most severely in the heavy land areas of West Suffolk, North Bedford, the break lands of Norfolk, the Wold country, and the chalk districts where corn and sheep formed the traditional system of farming; and here the heaviness of the price-fall has intensified the difficulties of reorganization. Capital is needed, but farming has offered no attraction to capital.

Efficiency in farming depends on three factors:

(1) The character of the land and permanent equipment.

(2) The character of the stock and raw materials with which the farmer works.

(3) The capacity of the farmer as a manager.

The farmer is being charged with inefficiency in production; it is on this charge that much of the demand for reorganization is based. But it would be well to consider to which of the three factors any inefficiency is due and how far the blame lies with the farmer.

With regard to the first, the following quotation from an agricultural paper suggests that all is not well:

> 'It is beyond doubt that agricultural equipment, in the widest sense, is out of date, and in the era of present prices, assistance can only be expected from the State. There are few landlords able to assist with the renovation and replacement of buildings. Arterial drainage is necessarily inefficient, and the 1930 Act has never functioned owing to lack of funds. Over large areas, old-fashioned tile systems with tiles of inadequate bore need to be replaced by modern large-diameter tiles. Liming, a feature of the best agricultural practice, is remarkable only for its gradual disappearance. If public health authorities were to act on their powers, hundreds of farm cottages would be closed as unfit for human habitation.'[1]

There are other ways in which capital equipment may be lacking or inefficient: unsuitable buildings, absence of roadways, poor fences, lack of adequate water-supplies; these are all handicaps to the efficient use of human effort.

The inadequacy of permanent equipment is due to the poor returns received by the landlord, to excessive taxation such as heavy death duties, and to the increase in owner-occupancy by farmers with its inevitable result in shortage of capital. It is unfair to blame the farmer for inefficiency due largely to inadequate permanent equipment.

What of the second and third factors—the character of the stock and raw materials and the managerial capacity of the farmers? There are undoubtedly weaknesses in both: this country possesses some of the best live-stock and crops in the world, and it has some of the best farmers in the world, but no one would claim that the highest standard is universal.

Take, for instance, the wide variation in milk yields. The following figures indicate the importance of yield in the cost of milk production:[2]

[1] *The Scottish Farmer*, vol. xli, p. 273, March 4th, 1933.

[2] Bissett, Pringle, and Thomas: *Dairy Farming in the Blackmore Vale*, University of Reading, Bulletin xl, 1931.

TABLE XVII

Milk Yields and Comparative Costs

Milk output per cow	*Costs per gallon*
gallons	*d.*
Under 400	12·90
400–500	10·11
500–600	9·15
600–700	8·18
700 and over	8·57

There is in general a marked reduction in costs where the yield per cow is high.[1] At present the average yield per cow in England and Wales is about 539 gallons; the average yield of cows in recorded herds is about 719 gallons.[2]

Results of cost accounts of sheep-breeding and feeding on similar types of farms in Kent during the six years 1923–4 to 1928–9 show extreme variation between farms, from a profit of 28 per cent. on capital to a loss of 32 per cent.[3] Similar figures for pig-keeping for the same six years show variations from a profit of 15 per cent. to a loss of 27 per cent.[3] Horse-keeping costs from ten farms for the five years 1926–7 to 1930–1 vary from 3·69*d.* per hour of horse labour to as much as 6·93*d.* per horse-hour.[3] Efficiency is, of course, a relative term, but the variations between farm and farm are wide enough to show that there is room for improvement.

Data from Hertfordshire give the average production of eggs per hen on different farms as ranging from 35 to as high as 184, the average being 89.[4] The effect of high or low yields on profits is shown in the following figures:[5]

[1] Certain systems of dairy farming do not necessitate intensive production to secure good profits. But even in areas where lower milk yields are more economical, as in example shown in Table XVII, there is a marked relationship between yield and profit.

[2] *Journal of the Ministry of Agriculture*, vol. xxxix, No. 5, August 1932.

[3] Wyllie, J., *Investigations into Farming Costs of Production and Financial Results*, Reports Nos. x, xi, xv, South-Eastern Agricultural College, Wye.

[4] *An Economic Survey of Hertfordshire Agriculture*, University of Cambridge, Farm Economics Branch, Report No. 18, 1931.

[5] Harris, A. E., 'The Profitableness of Poultry Farming in the North of England', *The Farm Economist*, vol. i, No. 1, January 1933.

TABLE XVIII

Egg Yields and Profits

Average eggs per laying hen in 308 days	*Average profit per layer*
	s. d.
100–10	1 10
110–20	4 2
120–30	7 3
130–40	8 11
over 140	8 8

The average profit on a bird laying 100–10 eggs was only 1*s.* 10*d.*, whereas the profit on a high-yielding bird was as much as 8*s.* 11*d.*; returns increased proportionately more than costs until a point was reached at 140 eggs per bird, when profit declined slightly.

The average number of pigs reared per sow per year in England and Wales is estimated at 10·3; the East Anglian Pig Recording Scheme indicated the number in that area to be about 10·6; 'in a well-managed herd a reasonable average is 7·5 pigs *marketed* per litter or 15 pigs per sow, assuming two litters per annum; but in practice two litters per sow within twelve months is achieved by only about 40 per cent. of the sows.'[1] The Reorganization Commission for Pigs and Pig Products assumed too high standards compared with existing ones. It based its cost of production formula on the assumption of 16 pigs marketed per sow, a very different figure from the present accomplishment of 10·3. In addition they estimated that only 4·2 lb. of food were required to produce 1 lb. gain in live weight; this figure was considered by them to be a reasonable one in view of efficiency standards in other countries. Yet it is claimed that this standard is 'probably not attained in practice by 3 per cent. of producers'.[2]

It is impossible to tell whether these variations are due to the material with which the farmer works or to his management, but nevertheless they do indicate a certain amount of inefficiency in production which might be reduced by the farmer.

[1] *An Economic Survey of Hertfordshire Agriculture*, University of Cambridge, Farm Economics Branch, Report No. 18, 1931.

[2] Menzies-Kitchin, A. W., 'The Pig Reorganization Commission and Production Costs', *The Farm Economist*, vol. i, No. 2, April 1933.

There is, however, another factor causing inefficiency for which the farmer is blameless, namely the extraordinary price fluctuations of the last few years.

When there is no knowing what the interrelation of prices a year or two hence is likely to be, when fluctuations are as rapid and severe as they have been in the last four years, inefficiency is inevitable. The situation was summed up in a farmer's letter to *The Times*: 'What can one touch that will pay—corn, cattle, milk, pigs, sheep, poultry, or what? We do not know what to be at.' The chaos in prices results in instability on the farm; the farmer tries one thing after another in an attempt to make ends meet. This must in many cases lead to inefficiency in the use of the land, the equipment, and the labour. For example, many farmers now growing grass or keeping poultry have had little previous experience of these branches.

There is one other aspect of this question which may be worth mentioning. Diminished efficiency may possibly result from too hasty a development in any branch of farming; for example, if pig production were to be expanded rapidly, this would entail the use of not only the best gilts for breeding purposes, but also of inferior animals, inferior either in litter-size or in the feeding potentialities of their litters.

It must be recognized that to a great extent the factors causing inefficiency in production—scarcity of capital, poor permanent equipment, and extreme price fluctuations—have been beyond the farmer's control. There are, however, causes within his control which can be remedied to a great extent.

One of the main lines of improvement in agricultural production awaits combined action—namely co-operative effort to secure standardization in the type of stock and crops raised. The urgent call for standardization must meet with its first response on the farm. No amount of standardizing and grading during marketing can achieve the same results so cheaply or with such success as standardization on the farm. It should be possible at this stage to discover what qualities of various products are demanded by the consumer or his agents, the wholesaler and retailer, and this information should be transmitted more quickly to the farm. There are, of course, marked variations in consumer-demand, but the successful

sale in this country of imported produce with a high degree of uniformity suggests that they are not great. In cereals there must be differences in varieties for different production conditions—barleys are a case in point—but this consideration appears to be less important in the case of live stock. For instance, the Pigs and Pig Product Reorganization Commission stated that 'only two-fifths of the pigs killed for bacon at factories in this country are reputed to be suitable for the production of first quality bacon'.[1] Welsh store-cattle breeders have already made a move towards co-operation in production. The following are the objects of their scheme:[2]

(*a*) To ear-mark the progeny of premium bulls with the sign of the 'Welsh Dragon', thereby providing buyers of store cattle so marked with a guarantee of their breeding.

(*b*) To encourage store-cattle rearers to breed from 'Welsh Dragon' marked females, sired by approved tuberculin-tested premium bulls.

(*c*) To encourage improvement in the methods of selling stock by organizing periodical sales of 'Welsh Dragon' marked store cattle at convenient centres in the country.

(*d*) To institute a campaign for giving publicity to the calf-marking scheme and for advertising 'Welsh Dragon' marked stock in the feeding areas, and thereby to induce the grazier and feeder to buy direct from the store-cattle rearers of the district.

(*e*) To prepare for the inception of the Licensing of Bulls Act—members of the Association being enabled by means of the calf-marking scheme to furnish substantiated information regarding the breeding of non-pedigree bulls reared by them.

The elimination of scrub stock and the use of pedigree sires on a co-operative basis should be a first step towards attaining reasonable uniformity. The machinery is already provided by the Ministry's Live-stock Improvement schemes. No obstacles should be placed in the way of the immediate

[1] *Report of the Reorganization Commission for Pigs and Pig Products*, p. 48, Economic Series No. 37, Ministry of Agriculture and Fisheries, 1932.

[2] *Journal of the Ministry of Agriculture*, vol. xxxix, No. 6, p. 501, September 1932.

application of the Act for the elimination of scrub bulls; it is already enforced in Scotland and Ireland, and the absence of enforcement in England will only place the English store-breeder at a continued disadvantage. Similar legislation might be extended with good results to sheep and pigs.

The farmer must continue to direct his ingenuity and energies to finding new ways of reducing costs and meeting the low level of agricultural prices. Litter-testing, pig-recording, milk-recording, flock performance tests, and so forth are other obvious methods open to him for testing the material with which he has to work with a view to its improvement.

Inefficiency in management results largely from price fluctuations. The most serious problem which the farmer has to face to-day is what to produce and how to balance the different enterprises to suit the particular conditions of his own farm. Cutting costs in itself is not always sufficient: it has been suggested that 'indiscriminate cost-cutting may help him for a time, if the fall in prices does not go too far; that the surest means by which to restore an equitable balance between costs and returns on the mixed arable farm is by a complete overhaul of the farming system itself'.[1]

This is the problem of management efficiency.

There is little doubt as to the evolution now in progress on the scientifically organized large mixed farm; it is moving towards departmental specialization within the farm itself, based, in the most successful cases, on a detailed system of cost accounts. Ample evidence is provided in the current agricultural literature.[2] This type of reorganization is gathering momentum though it is far from being universal.

It is significant that those farmers whose methods of overhauling their farming systems have been published have, without exception, paid special attention to the keeping of farm records and accounts. An exact knowledge of the profit or loss on individual branches is the best basis for the success-

[1] Orwin, C. S., and Lee, J. R., 'The Distribution of the Profits of the Land', *The Farm Economist*, vol. i, No. 1, January 1933.

[2] Of this, the most detailed are the two following series, (1) *Progress in English Farming Systems*, Nos. i–vii, Agricultural Economics Research Institute, University of Oxford; and (2) 'Notable Farming Enterprises', i, ii, and iii, *Journal of the Royal Agricultural Society*, vols. xci–xciii.

ful readjustment of the different lines of production. They show the farmer exactly where he stands financially; the records of receipts and expenditure, crop yields, live-stock production, feeding-stuff consumption, the labour time-sheets, all provide a useful check on his operations. Only by the aid of these accounts is it possible to lop off the uneconomical branches of the farm. Finally, it is only on the basis of past accounts that the farmer can budget his production plans for the future; a budget can no longer be worked out on loose estimates of probable receipts and expenses; the margin between profit and loss is now too fine to leave anything to chance.

The application of the principle to small farms presents great difficulties, and is hardly possible unless small farmers group themselves for the purpose of securing skilled accountancy. Perhaps landed proprietors might assist their tenants. It might be possible for the local bank or nearest agricultural college to prepare accounts and costings from data supplied to them by individual farmers. The results when completed would be given to each farmer, the bank or college treating them as confidential. If at the same time the costings results were grouped, averaged, and published anonymously, the identity of individuals would not be disclosed, but at the same time each farmer would have the benefit of comparing his production costs with those of others.

If, then, there is inefficiency in production, what is the best method of eradicating it?

Would the control of production by the State be a remedy? It would be based on the very doubtful assumption that the State commands the necessary ability for the supervision involved. The difficulties at present are insuperable: the balance between enterprises on any one farm is so delicate, and the difference between farms so great, that the imposition of external control of production would be certain to lower the standards of efficiency within the industry. It would lead to less flexibility in farming systems than exists to-day, and a less close approximation of supply to demand. Most serious of all would be the loss of independence and initiative by the farmer himself. At the present time there seems to be no suitable substitute for the individually controlled unit of

production, nor any other method than price to guide production. Detailed supervision of production by state officials may be ruled out.

The alternative is to attempt to remove the causes of the inefficiency by joint action between the State and the farmer. If so, the State must provide (1) the basis of steadier prices, a more stable general price-level, and (2) fresh capital, either by advancing loans at cheaper rates or improving the price situation so that capital is once more attracted into the industry. Finally, it must be recognized that the speeding-up of better methods rests largely with the State; the farmer, in a relatively isolated position, has little opportunity for obtaining first-hand information of new methods worked out either by other farmers or by research workers. New knowledge is continuously being built up as the results of agricultural research; its application must be tried empirically before being readily acceptable to the farmer. This may be done by the more progressive farmers, but if the trial is to be speeded up, the State should undertake those functions as well. The individual farmer is willing to accept new methods if he is assured of their value—and this in the end means their *economic* value: methods have often been advocated whose net gain in terms of money have not been proved, and this has naturally rendered all innovations suspect to the farmer, who requires clear demonstration of the value of new methods. This could be provided by careful experiments carried out by the authorities concerned, or by controlled experiments carried out by farmers themselves, the results in both cases being made readily available to all farmers interested.

CHAPTER VII

THE FARMER'S PART IN MARKETING REORGANIZATION

THE severest criticism of the British farmer is largely directed towards his unwillingness to combine for marketing. He has in fact shown considerable readiness to combine for the purchase of his requirements, but he has shown little disposition to co-operate in selling, except in the special case of milk. He has remained individualist in marketing as well as production. In 1931 he was given special powers under the Agricultural Marketing Act, powers which had not been previously granted to any other industry, to enable him to create boards of producers with full statutory powers for fixing prices and controlling sales, yet the use made of these powers has so far been slight.

His reluctance may be due to extreme individualism, to a lack of knowledge of the benefits of combination, or to a scepticism of the economic advantages to be derived from organization in this country, where markets are close at hand.

The last of these explanations appears to be logical. He may well be sceptical, since, after all, such action as he may take collectively for marketing does not strike at the root of the present agricultural problem, the fall in prices. Other countries such as the United States or Denmark, with a relatively strong co-operative development, have had to go through the same hard times. Co-operative organization in itself has provided no immunity to the disequilibrium of supply and demand.

There is a real danger of the phrase 'Marketing Reorganization' being regarded as a panacea for the present troubles and so preventing concentration on the more fundamental aspects of the problem. Enthusiasts must realize the limitations to the possible achievements of combination for marketing.

First, a combination of producers cannot fix prices to guarantee cost of production plus profit. Combinations cannot control demand to any considerable extent. In very few agricultural products have combinations of producers complete command of supply, since imports are beyond their control.

The price that an organization can obtain is limited by economic factors over which they can exercise little, if any, influence.

Second, a combination of producers cannot reduce or eliminate the services which the various middlemen perform for the consumer. Somebody has to undertake the collection of produce, its inspection, grading, transportation, processing, storage, selling, and delivery to the consumer. There is doubtless room for economies, but in general the trend is towards a greater demand by the consumer for more services, not fewer: packaged goods, bottled milk, cooked foods, delivery to the home, are all considered necessities now—they were not a few years ago.

Third, a combination of producers cannot, to any great extent, eliminate the middleman; especially is this so in regard to the retail trade, which is the section where there appears to be the greatest scope for economies; this problem concerns the consumer most closely and is probably more easily tackled from his end. The number of middlemen enumerated in the following table bears this out; the number of dealers, wholesalers, and manufacturers is small relative to the number of distributors between them and the consumer.

The opportunities for eliminating some of the middlemen at the producer's end of the marketing chain are not extensive. Associations of producers may replace a middleman by an agent in their control, but it is probably true that the greatest advantages derived from co-operation have been attained where the producers have been content to work with the middlemen rather than attempt to supersede them. There are, of course, exceptions, but in general producer-control has not advanced far in superseding established dealers. The Minister of Agriculture expressly recognized the difficulties in the way of eliminating distributors. 'There is', he said, 'a type of rationalization of industry which more often produces as much hardship and as much expense as the small margin of inefficiency and waste which it is designed to do away with.'[1]

Powers are given under the Marketing Acts for producers' organizations to form their own manufacturing and processing plants, but it is too early to know to what extent these will

[1] House of Commons, March 13th, 1933.

TABLE XIX

Numbers of Persons Employed in Food Distribution in Great Britain in 1921

Manufacturing	numbers	*Distributing*	numbers
Food:			
Grain milling	48,245	Horse dealers	3,911
Cereal foods and starches	6,269	Cattle and live stock	6,110
Cattle and poultry foods	2,641	Grain and forage	32,331
Bread and flour confectionery	166,553	Bread and pastry	6,130
Biscuits	28,562	Grocery and provisions, wholesale	38,930
Jam making and fruit preserving	22,506	retail	252,577
Bacons, hams, sausages, &c.	6,857	Milk and dairy products, wholesale	5,451
Other meat preserving	7,152	retail	63,180
Butter, cheese, condensed and dried milk	9,719	Vegetables and fruits, wholesale	20,533
Other food manufacturing	11,062	retail	71,253
	309,566	Fish and poultry, wholesale	12,378
Drink:		retail	42,151
Maltings	6,125	Departmental stores*	52,546
Beer	87,043		
Other breweries (not vinegar)	746		607,481
Distilling, &c.	10,094	Restaurants, inns, &c.	401,593
Cider and Perry	981		
	104,989		
	414,555		1,009,074

* Including only those persons directly concerned with the sale of foods.

be used, nor is it at all certain that there would be any advantage in the assumption of these functions by the producers. The Linlithgow Committee decided that a distributive machinery in the hands of non-agricultural experts is and will continue to be necessary. The report of the Reorganization Commission for Pigs and Pig Products does not envisage much disturbance of the existing trade in the direction of producer-control of marketing and processing functions; it provides for a board of bacon curers as well as of producers. The Economic Advisory Council Report on the slaughtering of live stock suggests some radical changes in the meat trade, but again not in the direction of producer-control.

The chief recommendation in this report is the formation of a National Slaughter-houses Board, consisting mainly of joint boards of Local Authorities, the object being to eliminate small private slaughter-houses, such as those owned by small butchers, and the provision of large public abattoirs in consuming centres. Sufficient evidence to justify these drastic proposals may have been received by the committee, but the pertinent material is not reproduced in the report itself.

It must be remembered that the largest market for home-produced meat is found in the country and small country towns; the demand for fresh meat does not come in the main from the large cities. In London, possibly 80 per cent. of meat consumption is of imported overseas chilled or frozen meat. If the butcher's own slaughter-house disappears there is every risk of the gradual disappearance of this large country market. If the butcher has to order carcasses from some large centre, there is no incentive for him to buy a home-killed beast; he is much more likely to order the standardized uniform imported carcass. The diminution of this valuable country market for fresh meat would be a serious loss to the home producer.

The Committee estimate the present waste to be about 15*s*. per beast slaughtered, but it is more than possible that the saving secured by large-scale methods would be wiped out by a decrease in the higher premium on home-fed stock.

Most of the evidence adduced by the Committee is derived from the experience of the economies achieved in large abattoirs in America, the Argentine, Brazil, Canada, Australia, New Zealand, and the Union of South Africa. But the conditions are entirely different in these countries: the bulk of the production being for an export trade after being artificially cooled and the consumer being many hundreds, if not thousands, of miles from the producer, there must be some bottleneck type of organization. There is no analogy with conditions in a country where the consumer lives almost next door to the producer. Even the citation of evidence from Scotland may not be convincing, since a great proportion of Scottish meat is for export trade to England.

The Committee give no estimates of the size of town for

which they consider centralized slaughtering to be suited. Out of 1,120 urban districts in England and Wales, there are only 296 with a population of 20,000, and it is doubtful whether the supplies required for 20,000 consumers would be sufficiently large to make the economies in large-scale slaughtering feasible. At present meat consumption rates, the annual requirements for a town of this size would be about 2,300 cattle, 12,000 sheep, and about 2,000 porkers.[1] On a daily basis, with 5 slaughtering days to the week, the requirements are about 9 cattle, 45 sheep, and 8 pigs. Then if 25 per cent. of the beef and mutton requirements are imported (it is probably nearer 33 per cent. in these areas), this reduces the numbers to be slaughtered to about 7 cattle, 35 sheep, and 8 pigs, a total of 50 head per day.

The cost evidence on which the Committee's recommendations are based comes from slaughter-houses with larger businesses. In the Argentine 'the *frigorificos* have a daily capacity of 1,000–3,250 head of cattle with a large capacity for killing sheep and hogs in addition'. In the United States 'the important meat packing concerns seldom operate plants with an output of less than 1,000 head of cattle a day, with corresponding figures for sheep and pigs'; the average number of head slaughtered in the federally inspected factories in 1927 was about 1,200 per day.

There are other grounds for the municipalization or centralization of slaughtering, but these should be kept distinct from the economic reasons. For example, New Zealand and Holland have adopted it from the hygienic point of view, and on this ground public slaughter-houses may justify such burden as they place on local rates.[2] Deficits are normally due to the fact that local authorities in the interest of public health charge uneconomical rates. It is from these 'uneconomically low' rates that the Committee estimated the losses and wastage of private slaughter-houses.

[1] This excludes the bacon requirements, bacon factories being excluded from the recommendations of the Committee.

[2] In 1928–9 the losses falling on public rates of those authorities which made separate returns of their slaughter-house finances were £33,117 in England and Wales and £8,736 in Scotland. 'Almost without exception, public slaughter-houses in England and Wales are a burden on the Rates.' Report of the Economic Advisory Council Committee on *The Slaughtering of Live Stock*, p. 26, 1933.

Towns must be large in order to justify centralized slaughtering from the purely economic point of view. Out of the 1,120 urban districts only 72 in Great Britain have a population of over 75,000. The economies to be obtained from centralizing the slaughter of less than 100–150 head per day are not likely to be considerable.

There would be more general economy in centralized slaughtering if the abattoirs were placed in juxtaposition to a reduced number of auction markets. The farmer would then be able to exercise his option as to whether he sold his stock on a live- or dead-weight basis. The country butcher would be less inconvenienced than if the abattoirs were in the larger towns, and the country market for fresh beef would not be lost.

The conclusions and tenor of the report, however, make it evident that the Committee do not envisage farmer control of slaughtering, but rather municipal control; the benefits of the economies to be achieved, if any, are not going to the farmer directly. The real justification of the recommendation is to be found in the humanitarian and hygienic aspects of the question, and it may well be that these considerations outweigh the economic disadvantages likely to follow the abolition of private slaughter-houses. In any case more adequate inspection is desirable, and this is admittedly difficult where slaughter-houses are numerous.

So far as most agricultural products are concerned it becomes evident that the main marketing function which organized producers can take over is the local collection of produce, but in order to be successful it must be at least as efficient as, if not more efficient than, the existing agencies. In this way, more direct contact with the wholesalers can be achieved as well as greater control over the market supply. Eggs, butter, cheese, milk, fruit, vegetables, and potatoes could all be collected and graded by farmers' associations and then passed direct to the wholesaler in the consuming areas. It is improbable that the farmers' direct control could go farther at present with any certainty of success.

Fat-stock marketing offers peculiarities of its own, and there is scope for farmers to acquire a further control through the live-stock auction markets. This has been done with marked

success at Banbury, where Midlands Marts, Ltd., a mainly farmer-owned company, has superseded a large number of redundant markets. Small markets with only a few head of stock mean few buyers and buyers' rings and 'unfair' prices, whereas large markets like Banbury mean greater numbers of live stock, larger numbers of buyers, more competition, better prices.

> 'Multitudes of small markets, originally designed to meet local requirements of producer and consumer, have persisted in spite of the fact that they are redundant and damaging to the farmer's interest; rings have been unavoidable and prices have been artificially depressed by the very smallness of the market.'[1]

Once the farmer assumes control of any distributive function at the producing end, he has more chance of making his influence felt in distribution; but so long as he continues to compete with his neighbour as well as with the middleman, his hopes of influencing distribution costs are negligible.

Prewett claims that the farmer, in self-defence against efficiently marketed food from abroad, must organize to carry his marketing, including all the necessary manufacture, at least as far as the dispersing wholesaler.[2] Few people would claim that the farmer is yet ready to start the manufacture of food products on a co-operative basis, but if it could be achieved successfully it would give the farmer a large degree of control over the marketing of his produce. It is a goal which should be kept in mind, though the special qualities and experience required to make a success make it a distant one.

One of the main objectives of farmer-control of processing factories is to deal with surplus produce. In certain instances a large crop or output depresses prices more than appears to be justified to secure the increased demand necessary to move the total supply into consumption. The change in price resulting from a change in supply varies with different commodities. If consumption of any given product is not increased however much the price falls, that is if demand is inelastic, then it is obvious that a surplus will cause a very

[1] Skilbeck, Dunstan, 'A Farmer's Live-stock Market', *Journal of the Royal Agricultural Society*, vol. xciii, 1932.

[2] Prewett, F. J., *The Marketing of Farm Produce*, Part I, p. 75, Clarendon Press, 1926.

big drop in price, since the surplus is practically waste; under these circumstances the total return from a large crop is smaller than the total return from a small one. On the other hand, if people are willing to consume more as the price falls, then the price drop is not so great in proportion to the excess as in the first case, and the total returns increase as the production increases. The demand for potatoes and for bread is relatively inelastic, and however far the price drops people do not consume much more. On the other hand, the demand for butter is elastic: if the price falls people eat more butter and less margarine, if it rises they eat less and change over to margarine. Control of supply is, therefore, most necessary where the demand for the product is inelastic.

The following data show the effect of different-sized surpluses on the price of certain commodities in the United States and this country. When the production of apples was 20 per cent. above normal, the wholesale price in New York was 12 per cent. below normal; whereas a similar 20 per cent. excess of potatoes caused the price to fall to 23 per cent. below normal. In other words, the price of apples had only to fall

TABLE XX

Supply-price Relationships for Agricultural Products

	Prices* compared with normal when production is:				
Supply	*20 per cent. below normal*	*10 per cent. below normal*	*normal*	*10 per cent. above normal*	*20 per cent. above normal*
United States†					
Potatoes	138	117	100	87	77
Apples	117	108	100	94	88
Pears	105	102	100	98	96
Great Britain:					
Potatoes‡	124	112	100	88	76
Imported beef§	112	106	100	95	91

* Wholesale prices.

† Warren and Pearson, *Inter-relationships of Supply and Price*, Bulletin 466, Cornell University, 1928.

‡ Cohen, R. L., *Factors Affecting the Price of Potatoes*, Report No. 15, Cambridge University, 1930.

§ Murray, K. A. H., *Factors Affecting the Prices of Live Stock in Great Britain*, Clarendon Press, 1931.

12 per cent. to move a 20 per cent. surplus into consumption, whereas potato prices had to fall 23 per cent. to accomplish the same. The demand for potatoes was relatively inelastic. In Great Britain the available data are not so satisfactory, but potatoes show very similar inelasticity. The price of beef had to decline only 9 per cent. to move a 20 per cent. surplus into consumption; the demand for beef is very elastic, i.e. it varies considerably with price. Conversely, it takes a very large reduction in supply to effect quite a small rise in the price of any commodity for which the demand is elastic.

Suppose the normal price of potatoes was £5 per ton and the normal crop 4 million tons, then the total receipts would be about £20 millions. But if a 20 per cent. surplus reduces the price by 24 per cent., then 4,800,000 tons would only bring £18,240,000. In such a case it would pay the farmer to take the surplus off the market even if he could get nothing for it. This is an extreme case, and similar conditions exist for only a few home-produced commodities.

The surplus problem has three aspects, depending on the origin of the surplus: (1) surpluses from deliberate increases, (2) surpluses due to weather and other abnormal factors, and (3) seasonal surpluses.

An organization of producers cannot, for various reasons, hope to control the supply of most products with a view to maintaining prices at an artificial level, but they can, so far as their own supply is concerned, control it to increase the returns through greater efficiency in marketing, by the removal of the surplus, by evening out the supply, by feeding the market according to its requirements, by 'orderly marketing'. On the other hand, how far a group of producers is entitled to restrict production in view of its effects on the community as a whole is another question.

It is the first type of surplus, the surplus due to a deliberate increase in production, which is apparently beyond the control of producers as a whole. It has been the downfall of many. For various reasons, agricultural producers' associations have attempted to maintain prices at a higher level than is justified by available supply; prices have not been allowed to fall sufficiently to allow the whole supply to move into consumption, with the result that stocks have accumulated. In addition

the artificial bolstering of price maintains production at a high level, and, if demand has not increased in the meantime, stocks are increased, and the situation is worsened when the next crop with a surplus is ready to be marketed.

When there is a surplus, it is tempting to hold it over till the next year; but this is a bad gamble, unless the next year's production can be curtailed by agreement among producers. This, however, has never yet been achieved, and so the chances are against a price rise. The carry-over of a crop, be it in the hands of the farmers, the dealers, or the Government, has an extraordinarily bearish effect on the market.[1] People know that it has to be worked off before the situation can improve. There are, of course, *normal* carry-overs to which the above remarks do not apply; they are an insurance against speculative dealings.

The Scottish Milk Agency provides an example of the dangers of unsound price maintenance.[2] In the first year of operation, 1927–8, the Agency was successful and made a profit of £20,000. The price of milk to the producer during the following winter was raised by 3*d.* per gallon, regardless of market conditions. Producers increased production to the limit of their contracts, and competition of non-members, who were also reaping the benefits of higher prices, increased. The Agency's reserves were used up, but a move to reduce prices was not successful, and the third year saw the maintenance of the previous year's prices. By August 1930 the Agency was saddled daily with 25,000 gallons of surplus milk. A levy of 3*d.* per gallon was made on members to pay for manufacturing this surplus. This burden was not shared by non-members, and dissatisfaction increased; membership declined from 1,200 to 569. There were three main factors in the failure of the Agency: a mistaken and unsound price policy, incomplete control of supply, and inexperienced management.

So far as the first two types of surplus are concerned, organized producers can accomplish much. Co-operatives cannot control the weather; there will be bumper crops and

[1] See the account of the Federal Farm Board's holdings on p. 59.

[2] A full account of its history is given in the *Report of the Reorganization Commission for Milk*, Economic Series No. 38, Ministry of Agriculture and Fisheries, 1933.

crop failures in spite of any amount of organization, but the effects can be mitigated. A quotation has already been given showing how some extra hours of sunshine may break the market for Cornish broccoli. The individual producer is helpless under these circumstances, but an organization can deal with a sudden glut in two or three ways. Firstly, it can widen the market: if London is overburdened it may try Birmingham, and so on; the individual has neither the money, the time, nor the experience to do this. Secondly, if the product is not too perishable it may store it for a time, or if it is perishable it may preserve it; fruits and vegetables may be bottled and canned, eggs may be pickled, butter stored, and so on. In these ways the problem of unexpected gluts and seasonal surplus may be tackled.

All the world over, the success of co-operative marketing has been most marked where producers have worked in this direction. Demand has been estimated carefully, not only on one market but in alternative ones, and price has been used to work off the total supply.

The following data for two representative years show how

TABLE XXI

Fluctuations in the Imports and Prices of New Zealand Butter on the British Market, 1925 and 1931

(average monthly imports and price for each year = 100)

	Imports		*Price*	
	1925	*1931*	*1925*	*1931*
January	157	143	92	102
February	198	143	91	104
March	161	101	95	105
April	165	112	90	98
May	127	106	91	95
June	160	71	94	98
July	59	96	101	99
August	20	71	105	99
September	18	61	110	100
October	4	55	120	106
November	69	81	112	101
December	62	159	99	93
Monthly average	104,600 cwt. = 100	161,200 cwt. = 100	191*s*. 6*d*. = 100	120*s*. 0*d*. = 100

the New Zealand Dairy Produce Export Control Board have tackled their problem. It is one case among many showing the success of combined action by agricultural producers. In 1925, before the control scheme operated, the monthly shipments of butter from New Zealand varied from 98 per cent. above the monthly average to 96 per cent. below; the actual variation in exports was 207,000 cwt. in February to 4,000 cwt. in October (Table XXI).

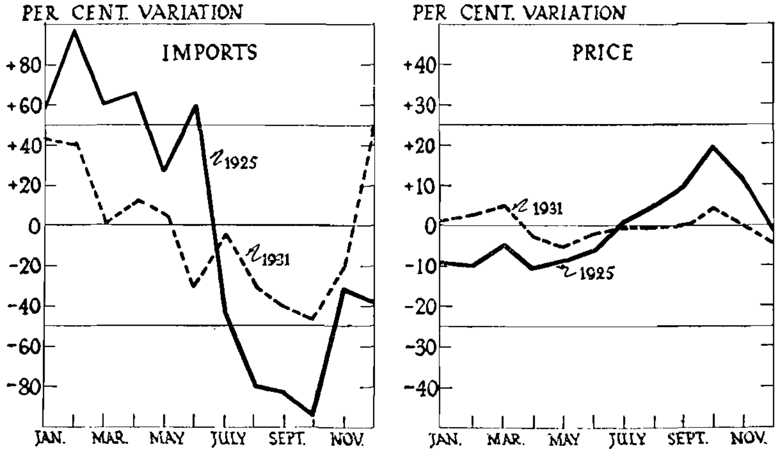

FIG. 5. Seasonal Fluctuations in the Imports and Price of New Zealand Butter on the British Market, 1925 and 1931

The result was that prices were very much depressed during the peak export season and were high when there were no shipments. By 1931 the Board had succeeded in reducing the wide variation by almost one-half; they varied between 58 per cent. above and 46 per cent. below the average monthly shipments; this resulted in a marked diminution in the price fluctuations, and when the unduly heavy burden of supplies at the beginning of the year was removed, the level of butter prices during the first part of the year, when New Zealand supplies are heaviest, was raised considerably. In 1925 the price during the first five months of the year, when supplies are heaviest, averaged 8 per cent. below the monthly average price; in 1931 it was 1 per cent. above the average.

Between 1926 and 1927 the Board attempted price fixation,

but opposition and competition were too strong; pooling and control were abandoned. Since then the Board has been content to limit itself to regulating and adjusting shipments throughout the season, supervising the handling of produce, obtaining reductions in transportation rates, supervising cold storage, obtaining favourable insurance rates, improving quality, and widening the market by advertising. This co-operative action exemplifies practically all the economies that can be achieved by combined action in returning to the producer his fair share of the consumer's £.

Few would deny that there is a need for this type of regulation by producers in this country, in regard to the quality and quantity of the product put on to the market.

The entire crop produced is not always suited for the market, yet too many farmers still assume that there is a market for everything produced, regardless of its quality. As grading and branding increase, the consumer is becoming more aware of quality. This was started by overseas producers to overcome the disadvantage felt by the buyer in not being able to see the goods before purchase. It has had a remarkable success. Many products exported from the United States, the Dominions, and Denmark to this country are subjected to rigorous, more or less official, inspection and grading. The methods of the British farmer have been challenged by this competition.

Another reason for increased discrimination by the consumer is due to the rising standards of living. Greater variety of food, both in type and quality, come within the purchasing power of a greater number of people. Inferior quality produce is placed at an increasing disadvantage. This is especially true of the more expensive foods, such as beef, lamb, fruit, vegetables, and so on.

Prices for first quality produce still show a marked superiority over second quality, indicating that the market for the best is not yet satisfied. Some prices taken at random in March 1933 are given in Table XXII.

The premium at that time for first quality varied between 7 per cent. for porkers to 33 per cent. for apples. Admittedly all produce cannot be first grade, but there is room for grading up. Evidence from other countries shows that total returns

TABLE XXII

Price Premium for First Quality Produce in March 1933

Commodity	Market	Prices: First quality	Prices: Second quality	Percentage premium of first quality over second quality
Fat cattle, per cwt. .	Norwich	41s. 6d.	34s. 0d.	18·1
	Rugby	45s. 0d.	40s. 0d.	12·5
Fat sheep, per lb. .	King's Lynn	11d.	9½d.	15·8
Porkers, per score .	Gloucester	15s. 0d.	14s. 0d.	7·1
Butter, per lb. .	Dorchester	1s. 4½d.	1s. 1d.	27·0
Eggs, per dozen .	Colchester	10¾d.	10d.	7·5
Potatoes,* per ton .	London	120s 0d.	100s 0d.	20·0
Apples,† per cwt. .	Liverpool	24s. 0d.	18s. 0d.	33·3

* King Edward VII. † Bramley's Seedlings.

are increased through careful grading. The returns from produce divided into first and second grades and culls are greater than from a similar quantity of ungraded produce on the same market at the same time.[1] It stands to reason that the buyer must protect himself against the risk of wastage by offering a lower price.

Successful and cheap grading requires a large volume of business and therefore necessitates some sort of organization and combination amongst producers.

The establishment of the 'National Mark' by the Ministry of Agriculture has been most successful, and is doing much to improve quality and to cheapen marketing costs. The Mark is available for a large number of commodities, including apples, pears, tomatoes, cucumbers, strawberries, cherries, cider, poultry, eggs, beef, flour, malt products, asparagus, peas, carrots, cauliflower, broccoli, several canned fruits and vegetables, and jam.

A reduction in the number of middlemen can only be achieved when grading and standardization of produce is the rule rather than the exception. Until that time, the purchaser, whether he be consumer, retailer, or distributing wholesaler, must have agents to inspect and value the produce for him. Grading and standardization are essential to shortening the marketing chain and reducing distribution costs.

[1] e.g. evidence given by Professor Boyle in *Marketing of Agricultural Products*.

So far examination has been directed towards the things that organization cannot and can achieve in order to reduce excessive price fluctuations and to bring about a closer relationship between production and consumption. Control of supply was one method of approach and control of demand through a reduction in distribution costs was a second.

There is a third method which has provoked a certain amount of discussion recently—the contract system. Sale by contract means the agreement to deliver goods of a certain grade and quality at a certain time in a certain quantity at a stipulated price. It follows from this that only standardized produce can be subject to contracts; for this reason it has been of limited application in agriculture. Future trading, which consists of the buying and selling of contracts, has been confined to products such as wheat, sugar, coffee, cotton, rubber, &c. Until lately, milk was practically the only agricultural commodity sold extensively under contract in this country.

Exceptionally violent price fluctuations in recent years have led to a wider adoption of the system, because it ensures that the farmer is not the only person to bear the risk arising from price fluctuation. In some districts, potatoes are grown under contract, the potato dealer paying the farmer so much an acre for his share in the production of the crop; the cost of lifting the crop, the only expenditure which is likely to vary much, is often paid by the dealer, so that the farmer's risk is practically nil. In other districts, live-stock dealers contract with farmers to fatten stock at so much per head; this custom has arisen partly from the farmer's wish to share the risk and partly from his inability to provide the capital or the credit necessary to purchase the store stock.

Two other crops are now commonly subject to contract dealing, sugar beet and canning crops. The beet factories have relieved the farmer from price fluctuation risks, since they in turn have been relieved to a great extent by the sugar beet subsidy paid by the public. Again, contract prices have been essential for beet growers, since there is no general market-price for sugar beet; costs of beet transportation are too high to send the beets to alternative markets, the factory has virtually a monopoly, and the contract system is the only

method that the farmer has of protecting himself. The factory, on the other hand, has a heavy overhead investment and does not wish to run the risk of being left with only a slight turnover and consequent high production costs. Where the factory has been able to write off its capital equipment, as has been the case with many, this incentive to a mutual contract system is lacking and the monopoly position of the factory is enhanced.

The use of contracts for fruit and vegetable canning has arisen because both parties benefited. The risks of price fluctuations for fruits and vegetables are very great, while the overhead charges of a canning factory are considerable. The growth of the canning industry in recent years indicates that the spreading of risks is attractive. In 1924 the production of canned fruits and vegetables amounted to about 40,000 cwt.; by 1930 it had risen to 256,000 cwt. Between 1928 and 1932 the number of factories had increased from 30 to 68. Of these 53 factories were using the National Mark.

If they can be made to work smoothly and as promised, the proposals of the Pig Reorganization Commission to extend the contract system to bacon pig production should prove acceptable to both parties, perhaps particularly to the bacon factory, which has heavy capital investment; after all, the bacon producer has another outlet for his product, the pork market, but the pig industry is characterized by price fluctuations, and a price-contract system is one method of avoiding the resulting risks.

There is one very marked benefit to be derived from the contract system in adjusting production to demand. If there is an exceptionally heavy crop, of say peas, the canning factory which is faced with a carry-over will announce at an early stage the minimum price for the next season's crop, and thus effective control of production by price is exercised in adequate time. This applies only where prices can be stated in advance of planting or breeding and where demand can be estimated with fair approximation; the difficulty of controlling certain live-stock production through a contract system arises from the length of time which production takes; beef prices would have to be fixed three to five years ahead in order to control production; by the time the product was ready the market demand might have changed materially.

However, for certain types of produce the contract system does offer a marked stabilization of price, especially in the elimination of short-time fluctuations. For long-time purposes it is less satisfactory, owing to the impossibility of estimating demand over long periods; but the difficulty may be met by permitting modification of the terms of the contract at reasonable intervals.

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CHAPTER VIII

THE STATE AND REORGANIZATION

CERTAIN factors beyond the farmer's control are vital in the determination of the profit or loss on his business. An increasing proportion of these tend to come within the control of the State in a country which is not self-supporting. State policy has a much more far-reaching influence on the result of the individual's efforts than has ever been the case in the past. There is, therefore, all the greater need that any policy proposed for the remedy of agricultural depression should be well considered in all its implications before it is adopted.

No policy can be permanently maintained unless it is built on sound premisses and takes into account the general social and economic conditions of the country. What agriculture needs is a measure of stability. The farmer has already to face variations in the seasons and other risks in farming which are unavoidable under any system. Instability in the natural conditions of farming is inevitable. A certain instability in his market follows from the variations in national prosperity. It is essential that no added cause of instability should be provided by the adoption of any policy likely to be reversed within a few years.

So far, then, as agriculture is concerned, the task of deciding upon the best policy is complicated by a variety of motives, social, political, and economic, and it is no easy matter to produce a policy for Great Britain that will satisfy all three points of view.

There are three types of policy which the State could follow.[1]

First, a policy of temporary relief to tide over a temporary depression or crisis, arising from markedly abnormal causes.

Second, a policy of maintaining British agriculture at an artificial level, independent of world conditions.

Third, a policy of reconstruction or reorganization, taking into account world factors as they affect British farming.

1. *Temporary Relief.* The first essential of this type of

[1] See Maxton, J. P., paper to the Agricultural Economics Society, London School of Economics, December 1932.

policy is to distinguish clearly the causes of any depression and ascertain the likelihood of its duration; the difficulty of the task is always increased by the fact that the need arises when the depression is at its worst and the outlook is blackest. Arguments which might justify temporary relief may be used to commit the State to a long-term policy not warranted by normal conditions. Under such circumstances economic reconstruction may be delayed by hastily devised measures of relief which it may be difficult to discontinue when the emergency is past.

Certain essential conditions must be observed in drawing up a programme for temporary relief.

In the first place, the remedies must be of such a character as not to aggravate the causes of the depression; otherwise its intensity will be increased and its duration may be lengthened. It is exceedingly difficult, and requires not a little courage, to insist during the depth of a depression that conditions may be merely temporary and only call for temporary measures. Human memory of economic conditions seems remarkably short-lived: one year's depression blackens the whole outlook, while a year of prosperity creates unbounded confidence in the future. A more balanced outlook would go far to minimize these fluctuations which cause so much waste in economic life.

Few would quarrel with the conclusion that the stagnation and depression in agriculture is due to a restriction, in one form or another, of world trade in general. A great part of that trade consists in the exchange of the manufactured products of industrial countries for agricultural products and raw materials from the newer countries. Many of these countries have no other means of meeting their obligations except by the export, primarily, of agricultural products. So restriction of the trade in farm products may only worsen matters. It must be remembered that many foreign countries as well as parts of the Empire have built up an agricultural industry dependent on the British market; for all practical purposes they have no other. The closing of this market may spell disaster for them, and by curtailing their purchasing power for British export goods may probably cause them either to try to manufacture those goods, instead of buying

them from us, or else to obtain them from other countries in return for commercial concessions.[1] The agricultural interests of Denmark, of the Argentine, of Uruguay, &c., built up at considerable cost, are not going to be extinguished without a struggle. Killing any industry which is the mainstay of a people may seriously prejudice the world's return to peace and prosperity. Therefore every care must be taken lest a temporary policy intended to relieve domestic national depression should accentuate the external causes of the depression.

Secondly, temporary relief must not stimulate a false development in British farming; it must not attempt to establish lines of production which are grossly uneconomic, such as sugar beet, which cannot 'stand on their own legs' in more normal times. Vested interests, once they are established, become rapidly deep-rooted and politically difficult to eradicate. Often relief or State aid which has been planned as a temporary measure has been allowed to drift into a permanent policy, owing to the political clamour and power of the vested interests created.

Thirdly, a short-term policy should not retard the invention and application of new methods to suit changing conditions. At a time when the advances of science are so rapid, it is fatal to stereotype systems of farming. The forces making for increased material wealth seem to be irresistible. Any policy which consolidates at the expense of progress will cause the readjustment which must come sooner or later to be all the more severe in its consequences.

2. *Permanent Subsidy.* The second policy of maintaining

[1] The New Zealand case was put by Mr. Forbes (June 15th, 1933) before the World Monetary and Economic Conference. He said: 'As an exporter of primary products, New Zealand is particularly concerned with the suggestions for the quantitative regulation of the supply of such products. Producers in New Zealand are most reluctant to agree to limitation either of exports or of production. We look to the removal of barriers, and to the restoration of purchasing power, to enable increasing supplies to be absorbed. As mentioned before, it was in anticipation of expanding markets that the Dominion borrowed to the extent that she has for capital development.

'Whether the mere removal of barriers will suffice to restore prosperity, or whether, on the other hand, the orderly regulation of supplies is necessary, are questions for examination in detail. Whatever may be done, however, we feel that the whole purpose must be to avoid reduction and to secure an expansion of consumption and production.'

agriculture at an artificial level is one which has appealed to statesmen in other countries, and arises from motives which have practically no parallel in this country. Many of them are sound in principle, but excessive measures of protection of essential foods may not obtain for any length of time the support of urban, commercial, and industrial interests. Therefore they provide an unstable foundation on which to build a permanent and prosperous agriculture in Britain, where urban and manufacturing interests have wide political influence.

Some countries, such as Denmark, have supported their agriculture because it is their only great industry, but this contention has not the same force in this country, where there are at least three greater industries, judged either by output or employment. Though farming ranks as our fourth industry, it employs but a small proportion of the total number of workers. Only three out of every hundred persons in Great Britain are actively engaged in agriculture.

The arguments advanced in favour of a subsidized industry are those of national defence, health, and stability. In this country the case for a sound agricultural development has been weakened because of the misplaced emphasis on the first and second reasons.

Food production for the purpose of national defence in time of war has long ceased to be the standard by which British agriculture can be judged; it ceased to be the criterion at the end of the Napoleonic Wars. Great Britain has travelled so far from self-sufficiency, a journey of over a hundred years, that any hope of retracing our steps over even a short part of the way is impossible—it would entail a drop in standards of living and a disturbance in international economic relations that cannot be even contemplated; the cost would be too great. Take wheat alone—in order to produce one-fifth of our requirements, the State has paid 45*s*. per quarter, about 20*s*. above the present world price. Even if this low world price is abnormal, it is unlikely that we shall have to pay over 35*s*. to get all the wheat that we require for many years to come. Self-sufficiency in wheat production is out of the question. It is generally understood, too, that the Imperial Defence Committee have not pressed for a policy of

self-sufficiency. The storage of wheat is a comparatively simple matter, and the cost not prohibitive.

Sir Thomas Middleton, who was Deputy Director-General of Food Production during the War, stated that

'it would require more than 20 million acres of land to supply the *grain alone* that is consumed in this country, and to secure this quantity of grain it would be necessary to plough every acre of land not subject to flooding and not too far above sea-level to prevent corn from ripening. The cost would be prohibitive, and the suggestion that we might furnish our people with their normal food supply may be dismissed as absurd.'[1]

Before the War, home agriculture supplied 33 per cent. of the country's food requirements; during the War, when pastures were being ploughed up, when reserves of fertility were being drawn upon to their limit, and when agricultural capital in the form of live stock was being used up, the percentage was raised to 42, but no farther. With a maximum effort, and with prices at a far higher level than costs, food production was intensified to the point that we were able to feed ourselves on thirteen instead of ten days in the month.

Too much can also be made of the national health argument. It is true that the incidence of most diseases is less in rural than in urban districts, but this may be as much the result of decentralization of population, and consequently reduced chances of infection, as of a healthier rural stock. From the health point of view it might conceivably be more economical to spend money on decentralizing the urban population, or on improving urban health services, than on artificially maintaining a large agricultural population.

The argument that national stability is augmented by having a large and prosperous agricultural population is based on surer foundations. Many believe that a nation suffers unless it maintains a reasonable balance between industry and agriculture, that it suffers if all or an overwhelming proportion of its people are urbanized or industrialized. There is certainly a balance between British industry and farming, in that a prosperous countryside provides a good market for the

[1] Middleton, Sir Thomas, *Food Production in War*, p. 324, Carnegie Endowment for International Peace, 1923.

industrialist, while a healthy industrial demand makes a good market for the farmer. If, however, the question were closely examined it is probable that a prosperous home agriculture is not so essential to British industry as industrial prosperity is to the British farmer.

Socially and politically, a rural or a balanced population is more stable than a purely or mainly urban electorate. This is probably generally true, but its application is perhaps not so cogent in this country as in others. No other State has such a large and well-defined middle class, providing a maximum of stability. A large population interested in government securities and with savings in the Post Office is as sure a stabilizing element as any peasant population.

It has been repeatedly claimed lately that the British export trade will have to face so reduced a foreign demand in the future that it must turn increasingly to the home market; that food imports must be curtailed in proportion as our means of paying for them disappear. If this is admitted as a permanent argument the outlook before this nation is indeed dark. This attitude was practically non-existent prior to 1930. One must hope that it is only a psychological reaction to the greatest world depression that has occurred in history. Surely there is no adequate reason for believing that this defeatist outlook will continue, should some slight measure of industrial prosperity appear and the removal of restrictions permit international trade to return to its former channels—if not to pre-War, then at least to pre-Depression conditions.

Are present world conditions to be permanent? Is the whole principle of international trade—the exchange of those goods for the production of which a country is most suited in return for those produced with a minimum of human effort or capital outlay by some other country—to be disregarded and the post-War legacy of petty nationalism to remain? Is the excessive development of nationalist sentiment which is hampering humanity to continue indefinitely? Declining food imports will bring a rise in food prices, and agriculture will be stimulated, but unless some radical far-reaching discovery is made the cost may prove fabulous. Some who believe in a nationalist world go so far as to envisage a reduction in our population to about 20 million inhabitants

—self-supporting and self-sufficient. But, even with the most stringent birth-control, generations would have to pass before the population could dwindle to that level.

Lastly, it is claimed that agriculture can contribute in some degree to the solution or mitigation of the unemployment problem. This is correct, provided too much is not expected and provided that a policy of land settlement is not rushed. Allotments and small holdings can increase our food-supply and rural population, and do much to keep up the morale of men who would otherwise be unoccupied.

These social and political claims for maintaining agriculture at an artificial level complicate the framing of an agricultural policy. It is all very well for town-dwellers to demand that more food should be grown in this country in case of war or of a decrease in exports, and that more people should be put on the land in order to ease urban unemployment. But will they pay for it, or are they going to allow standards of living to remain at a lower level in agriculture than have been permitted for urban industry?

It is impossible to ignore the economic issues involved: low wages or incomes in the country relative to those in the towns will bring about rural depopulation. In these times of greater contact between town and country, comparison of urban and rural conditions is inevitable. It becomes more and more difficult, if not impossible, to keep the younger generation attached to the land in the face of better conditions in the towns. 'We have to make our choice whether we shall seek improvement in the standards of living, or to continue to seek numbers and leave them to accept the standards which numbers entail.'[1] The argument that closer land settlement will perpetuate in agriculture those conditions of sweated labour and of long hours which have not been tolerated in the towns has been perhaps overstated, but the contention has some basis.

There is only one way out of the dilemma, and that is by sheltering the industry by some means or other, so as to provide for the raising of agricultural prices and the value of the agricultural output; in this way an increased population

[1] Duncan, Joseph, quoted by Alexander Hay in a paper read to the Agricultural Economics Society, December 1932.

might be kept on the land without lowering existing rates of rural wages and incomes.

The necessity of some such aid can be realized from an examination of the net output statistics of various industries (Table XXIII). In a broad sense, the net output represents the dividend available for those in the industry; to this extent it limits their standard of living. Comparison with the standard in other industries affords some measure of the efficiency in the use of human effort in agriculture.

TABLE XXIII

Net Output and Employment in Certain Industries in the United Kingdom, 1924*

Industry	*Net output*	*Employed persons*	*Net output per employed person*
	£ million	*thousands*	*£*
Textiles and clothing	308·8	1,819·7	169·7
Iron and steel	299·7	1,504·3	199·2
Mines	229·9	1,295·7	197·4
Agriculture	191·7†	1,280·0‡	149·8

* The net output is obtained by deducting from the gross output of the industry the estimated cost of the materials used and of the work given out to be done on goods.

† Average for 1924–5 to 1927–8. ‡ 1925.

In the iron and steel industry the net output per man was £199·2; in farming it was only £149·8. If agriculture is to attain the same net output as, say, the mining industry, there must be either a reduction in the number of persons employed, or an increase in the net output, or both. To raise the net output of agriculture to £199 by employing fewer persons would involve a reduction from 1,280,000 to 962,000, a decline of 318,000 or 25 per cent. On the other hand, to raise the net output per man without diminishing the number of persons employed would mean increasing the *net* output by 33 per cent., from £191,700,000 to £255 millions. This would probably involve raising the gross output by well over £100 millions in order to attain, with the present agricultural population, the same net output as in the mining industry.

These are the extremes: either a further reduction of 25 per cent. of the dwindling farming population, or an

increase in the output per person of 33 per cent. This latter would have to be achieved by raising the value of the output artificially by tariffs, subsidies, bounties, and the like. It is unnecessary to point out the increase in net output that would be necessary to maintain the same standards of living as in other industries, if the agricultural population was largely increased.

3. *Economic Reconstruction.* The history of the last hundred years provides ample evidence that since Britain became a great industrial nation dependent for her wealth and large population on an overseas commerce, she has never maintained her agriculture for any length of time at an uneconomic artificial level. Urban voters will help. For a time they will put their hands in their pockets. But the amount they will spend and the length of time during which they will give this help have invariably been limited. If the public should feel that its money is being wasted on uneconomic schemes it will once again turn its back on agriculture and refuse to contribute towards its welfare.

Have conditions in the last two or three years changed so radically that the urban industrial population will alter its traditional attitude? If so, the public has been singularly slow in showing the change. Within the last two years we have seen Britain adopt a protectionist policy, so conceived that it omitted the bulk of the agricultural industry (i.e. all live-stock products) from its scope. Since then, the Ottawa Conference has shown once again that British agriculture can expect little at the hands of Parliament, for there our representatives pledged themselves not to protect our most valuable branch of agriculture (dairying) from its most serious competitors (the Dominions) for a period of years. It is too early yet to judge the fate of the import restrictions; they have operated under abnormal conditions of both supply and demand, and have not yet raised food prices. If they should, however, raise prices, will they survive?

There are signs already that the public interest in farming which was evinced in the critical days of 1931 is passing away. Once again it is becoming evident that the commercial and industrial interests will not favour committing the country to any large or expensive policy which would permanently heavily

subsidize or protect agriculture. Sooner or later, therefore, British agriculture may have to face the third type of policy—reconstruction and organization on an economic basis, taking into consideration world factors and using our own natural and economic conditions to our best advantage. Only on such a foundation can the British farming industry be built up surely and lastingly to provide a decent livelihood for those engaged in it.

There is no need to view with alarm the prospect of British agriculture facing world competition; it has done it in the past with remarkable success, even though severe difficulties have been experienced since 1920. It is only in the last three or four years that, in common with all other producers of primary products the world over, it has been submerged by the catastrophic fall in prices. Production of food has not yet reached such levels that there is more than is necessary for the satisfaction of human needs. A rehabilitation of purchasing power to restore demand to its previous level would soon diminish those 'surpluses' which have brought farmers face to face with ruin.

CHAPTER IX

ARTIFICIAL AID

Of the various policies which the State might adopt with regard to agriculture the safest appears to be a reorganization of farming in the light of world conditions—an efficiency policy. An important argument for an 'efficiency' policy as against a policy for the permanent maintenance of British agricultural prices at an artificial level independent of world prices is that the urban population, who exercise a preponderant influence in the State, would be unwilling to maintain an excessively high price for a large number of commodities for any lengthened period of time. The town voter, however, might be willing to help the farmer by paying more for beef and mutton, early vegetables, butter, and similar quasi-luxury foods, if he were assured of cheap flour and bread, milk, sugar, bacon, and potatoes. That is to say, prices might possibly be maintained for certain farm products at a higher level than has been the case since 1926 without any serious danger of a revolt on the part of the consumer, if the ordinary staples were cheap. British industry in general had, up to the date of our going off the gold standard, a high wage-level in comparison with that prevailing in competing countries; dearer food means a rise in those wages and a further weakening of the competitive power of British coal, iron, steel, and textiles. But the fundamental difficulty of adopting a policy for the restriction of imports on a permanent basis is the dependence of Great Britain on her export trade. He who sells must buy, and British purchases are mainly food and raw materials. The British farmer depends as much on the prosperity of the exporter as on high food prices.

If this diagnosis is right, if permanent high prices of, or high subsidies on, foodstuffs all round put an unbearable strain on the economic structure of Great Britain, British farming must, sooner or later, face the withdrawal of any excessively costly protection on the staple foods accorded to it, and again meet the competition of the products of overseas countries. Any policy which does not fit the farmer to

compete on a basis of world conditions will only make the inevitable readjustment more severe and more prolonged.

These considerations, however, do not in any way justify the abandonment of the idea that the townsman may to a reasonable extent 'hold the ring' for British farmers. They merely imply that assistance must be well considered, so that if at any future period it becomes necessary to remove some of the supports provided for the farming structure, the bulk of the industry will not only be able to carry on with a minimum of disturbance, but may perhaps even expand.

An efficiency policy depends on raising the net money output of the industry so that the standard of living of those dependent on farming may be raised above or at least maintained at the level of conditions before the recent severe depression. If this is to be done without further disemployment, there appear to be three possible methods of securing that increase in net output:

(1) By increasing the efficiency of the industry, and, by the reduction of costs, so increasing the net money return to the farmer. This method includes the adjustment of production to the demands of the market, certain changes in systems of farming, and a general application of the best economic methods.

(2) By raising the level of agricultural prices, so that if costs remain stationary the net return—the difference between the gross returns and expenditure—is increased.

(3) By the simultaneous application of the two methods. This, however, is difficult to achieve, since measures designed to increase prices often tend to stereotype production on an uneconomic basis.

Methods of increasing returns by reducing production and marketing costs are discussed in the next chapter. What means are there of artificially raising the level of agricultural returns in relation to prices in general? The chief methods available for this country are bounties, subsidies, or restriction of supplies by various methods.

A bounty is something received by producers in addition to the price received from consumers through ordinary market operations.[1] The term is usually confined to amounts given

[1] Palgrave's *Dictionary of Political Economy.*

directly by Government. Their main purpose has usually been to increase the production of that commodity for which the bounty is given; recently, however, they have been used in exporting countries more for the encouragement of exports and to neutralize customs duties in the countries of importation. A production bounty has the advantage that it does not directly irritate the foreign producer as much as a tariff, or some other direct measure of protection; it is regarded as a domestic concern.

Export bounties as opposed to domestic production bounties may irritate the country importing the subsidized goods, since they suggest dumping at less than cost of production, and tend to nullify protective tariffs.

Bounties have not been popular amongst politicians because their cost is so easily recognized by the public. Definite payments to producers, which can be calculated almost to the nearest pound, are not acceptable to an electorate which is sensitive about food taxes. When the clauses of the Agricultural Act of 1920, guaranteeing *minimum* prices for wheat and oats, were repealed in the face of unexpectedly heavy charges, a compensatory bounty, a single payment for one year, was given on wheat and oats acreages. The cost of this was about £18 millions.

Slightly different from a bounty are subsidies such as the Sugar Beet Subsidy, since the additional price received by the farmer is not independent of the ordinary operation of the market; the farmer's market-price is an enhanced one; but the price increase is supplied directly by the Government to the beet factories and the amount expended in assistance is definitely known.

The Wheat Quota is another form of subsidy which is not quite a bounty, since the money required is not given directly from the State revenue, but is raised indirectly by a tax on the processed product, flour, and paid by the consumer. Here again the exact amount of the subsidy can be reckoned approximately.

The following quotation summarizes the effects of bounties:

'Home prices rise for a while under the influence of bounties; there follows an increase in production which involves a fall in prices and brings us back to the starting point. Finally, export bounties cause a

corresponding drop in prices on the world market, neutralize the effect of customs duties, and eventually increase the intensity of the crisis.'[1]

Such a policy must therefore be essentially a temporary one unless some accompanying limitation of production is enforced; otherwise the rise in price defeats itself. The British Wheat Quota contains this principle, for although it was framed definitely to increase production, possibly beyond the economic acreage, a limit is fixed so that if production rises beyond this maximum the subsidy is proportionately reduced. Similarly recent American proposals have suggested the granting of a bounty only on condition that the receiver restricts his output. Only with control of production can the use of bounties and subsidies be considered as a long-time policy to raise prices.

Another method of raising the price of a commodity is through the restriction of supply. This is the method which *the Government have evidently chosen as one of the most* desirable ways of achieving a rise in prices. The Chancellor of the Exchequer stated in the House of Commons[2] that there was general agreement that, if a way was to be found out of the present difficulties, a rise in commodity prices must be brought about—a rise in gold prices if possible, failing which a rise in sterling prices. In another speech he claimed that the restriction of meat imports at Ottawa had achieved a success which encouraged him to think that it might with advantage be extended to other commodities.

'If it turns out, as I believe it will, that the experiment is a success, we shall have had an object lesson that will be well worth very serious consideration in trying to think how it is possible to raise the wholesale commodity prices of the world.'[3]

The policy of raising prices by restriction of output is dealt with in a letter to *The Times* by Professor Pigou, from which the following is extracted:

'The Chancellor has pinned his faith on a rise in prices so firmly that he sees no difference between a rise brought about *via* more money and one brought about *via* less production. But the only reason why most people desire a rise in prices is that, in present conditions, they regard this as the most hopeful method by which an increase in production,

[1] *The Agricultural Crisis*, vol. i, pp. 20–1, League of Nations, 1931.
[2] Hansard, volume 274, column 1227, February 1933.
[3] Hansard, volume 270, column 264, November 1932.

and so in employment, may be brought about. They want prices to rise in order that more people may be employed; they do not want less people to be employed in order that prices may rise. By restricting production to nothing at all we could make prices infinite, just as we could make the rate of interest nil. But this is not the ideal towards which most people would like the British Government to guide the world.'[1]

So far as any one industry is concerned, any policy of output restriction will only benefit it at the expense of the rest of the community. If every industry adopted the same method of bargaining, by contributing less to the national dividend, there would soon be little dividend to share. A general policy of output restriction is plainly suicidal. Has agriculture alone the right to bargain on these lines with the rest of the community? Can 6 per cent. of the population be justified in asking so much of the other 94 per cent.?

Consideration of the restriction of supply can be divided into two parts: (*a*) imported, and (*b*) home-produced.

With only one or two exceptions, such as potatoes and milk, this policy of supply restriction depends on Government action, owing to the large proportion of the supply of most commodities that is imported. What means are available to the Government to restrict imported supplies, should it be willing to do so? The most common measures are: (*a*) prohibitions, (*b*) tariffs, (*c*) quotas, voluntary or compulsory, (*d*) import monopolies, (*e*) exchange depreciation.[2]

Prohibition of imports has been used nominally only for sanitary and health reasons—the embargo on fresh meat imports from the Continent on account of foot-and-mouth disease, the prohibition of imports of cherries from certain areas infested with insect pests, the exclusion of potatoes from areas where Colorado Beetle is prevalent. These have all resulted in restricted supplies, but they were undertaken primarily for motives other than the raising of prices.

Tariffs have been in all countries the most usual method of reducing imported supplies, though this is not always their sole aim. Import duties may be imposed in order to secure

[1] Pigou, Professor A. C., Letter to *The Times*, November 1932.

[2] This, by making the cost of imported commodities greater in terms of the currency of the importing country, is of little importance for the British imports of agricultural products derived largely from countries on a sterling basis.

revenue. Governments favour this method of raising revenue because it is collected indirectly from the taxpayer; the duties are in general eventually paid by the consumer, but the burden appears to be less personal. They may also be imposed in order to protect national industries, either to compensate for the difference between production conditions at home and abroad, to give temporary protection to infant industries, or to increase any privileged position which the home producer may already have. Finally, tariffs may be used as a bargaining weapon and a means of negotiating commercial agreements.

Tariff duties may be on a specific or an *ad valorem* basis. The former involves a definite figure, while the latter varies as prices vary. A specific duty is usually easier to collect than an *ad valorem* tax. It places a relatively heavier burden on poor quality produce: the present duty of 15*s*. per cwt. on foreign butter represents an *ad valorem* tax of 12 per cent. on Danish, 14 per cent. on Argentine, and 16 per cent. on Siberian butter, according to prices ruling in 1931–2. Furthermore, the specific duty becomes heavier when prices are low: a duty of 1*s*. 6*d*. per 120 eggs represents a tax of about 20 per cent. on Danish eggs in the spring, and only about 7 per cent. in November. As a matter of fact, foreign egg imports are highest from September to April when eggs are dear and the duty burden is lowest. An *ad valorem* tax is reputed to be difficult to collect, as it entails so much doubt as to the value on which the duty is to be levied and results in constant friction.

Quotas are a comparatively recent development. In principle, an import quota involves the quantitative regulation of imports, either with or without the voluntary co-operation of exporting countries. They may not necessarily be used for protective purposes, since quotas may be fixed at such a level as to involve no restriction of supply; they may be used merely to stabilize prices. Their administration must tend towards greater centralization of control, and therefore regulation of imports by quotas is a step towards the formation of import monopolies and import boards.

Import quotas can be allocated in two ways, which may be distinguished as the 'national' and the 'global' systems. In both cases the total quantity to be imported is fixed. Under

the 'national' system the total is divided into proportions allocated definitely for a longer or shorter period to each of the exporting countries; under the 'global' system exporting countries compete with each other to obtain as much as possible of the quota fixed for total imports. There are obvious advantages in the 'global' quota method, as quality and price play their part in the proportions contributed by different countries; moreover, the Government of the importing country is not placed in the invidious position of allocating a definite quota to each exporting country. Difficulties of administration prevent the adoption of the global quota method, which is not feasible so long as a number of importing firms have the business in their hands; the system demands a central importing body.

The 'national' quota system does away with both the evils and the advantages of competition; it guarantees to the exporters of each exporting country an outlet either for a fixed quantity of any given commodity or a fixed share of the total imports into the importing country. One of the reasons for preferring the 'national' system at the present time, apart from the administrative difficulties in operating the alternative system, has undoubtedly been that the method provides means for dealing with the danger of the competition of exports from countries with depreciated currencies and of exports subsidized in the country of origin.

An import monopoly implies some central authority as sole purchaser of the imported supply of any product or products. During the War, centralized purchasing became necessary in order to secure adequate supplies at reasonable prices. The possibility of import monopolies as a protective measure has not been missed: in this country, a proposal was made to establish a wheat and flour import monopoly, the idea being that the importing authority would buy imports at world prices, and the home-produced supply at higher than world prices, and then sell to the consumer at some intermediate price. This device is, of course, of little use where the bulk of the supply of any commodity is home-produced.[1]

[1] The disadvantages of import monopolies were dealt with in *Land and Life*, pp. 60–4, Gollancz, 1932.

Finally there is one other method which has been used recently as a means of restricting imports, namely depreciation of exchanges. This can, however, be only temporary in its effects. It is accomplished by a country off gold ceasing to peg its exchanges when the exchange situation is weak, or by raising its internal price-level. In the former case, the restriction of imports will bring about a strengthening of exchange rates, and the check to imports disappears. When the internal price-level is raised, benefits last only so long as the rise in costs lags behind the rise in prices. Unless inflation continues, the stimulus to increased exports and reduced imports is soon lost by readjustment to the new price-level.

The final result of a protective system, whatever may be the particular method employed, is to reduce imported supplies and narrow the market, and, by excluding to varying extents the competition of the most economically produced or artificially cheapened product, to encourage the continuance of the less 'efficient' home producer and so raise the average cost of production. A further result is, of course, the reduction of international trade: the higher level of costs incurred in the protected country lessens its competitive power, and, in any case, a lower level of imports means some fall in the market for exports.

The choice of method to restrict imports is for most commodities limited to three: tariffs, quotas, and Import Boards. For purposes of discussion, Import Boards may be regarded as an advanced form of quantitative regulation or quota, the difference lying mainly in administration. The quota system may enable importing houses and others to make excessive profits.

If prices rise, the consumer will suspect 'profiteering' whether excessive profits are in fact realized or not. Prices cannot long be maintained in an artificial way by quantitative restriction of imports without arousing the demand for supervision of trading. Therefore, if the State creates opportunities for monopoly trading, the State will in the long run be called on to take over the administration and assume direct control of imports.

The relative merits of tariffs and quotas depend upon the purposes for which they are imposed. There are two distinct

aims, which it is important to distinguish, i.e. raising prices and stabilizing prices. Again, a distinction must be made between temporary, emergency, and long-term policies.

If the aim is to raise the domestic price of a commodity for a short time there is little doubt that a quota is the most effective weapon; owing to the relative perishability of agricultural products, they cannot be stored; the farmer has to put them on the market. If the market is protected by a tariff, the foreign producer may be willing for a time to bear part of the burden, and temporarily accept lower prices or even sell at a loss. A tariff therefore may not cause an immediate reduction in supplies; in the long run it will restrict supplies, but not so immediately as a quota does. This is practically the sole advantage of a quota for price-raising purposes.

Quotas have also been advocated on the ground that the increase in the price of imports goes to the foreign producer and so helps to raise the level of world prices, to increase the purchasing power in the exporting country for the industrial products of the importing country, and to prevent the excessive contraction of production which might eventually follow from a continuance of the present low prices of agricultural products.[1] But this is not always the case, for the recent quota restrictions on chilled meat have given the price gain not so much to the Argentine farmer as to the importing house. Already the Argentine producers are asking that the State should administer the quota on their side. Where there is a strong co-operative association the argument has less force; where there is direct trading between the co-operatives of the exporting and the importing country the case is different, but direct trading between co-operatives is as yet so negligible that it has little practical relevancy. Generally speaking, the importing firm rather than the exporting producer benefits. The importer has increased bargaining power in purchasing

[1] This argument was put by Major Elliot on the Second Reading (March 20th, 1933) of the Agricultural Marketing Bill. He said: '. . . it is in the interest of the world quite as much as of our own producers that the supplies into this market should be controlled and should not be turned on and off with violence. It is essential—modern conditions demand, whatever may have been our views in the past on this matter—that the shades of Bright and Cobden should no longer influence us. Not only is Queen Anne dead, but Queen Victoria is also dead, and we have to shed Victorian economics once and for all and go forward to the organization of markets and to world-planning in these matters.'

his supplies, since the imposition of restriction results in an extra surplus in the exporting countries, a surplus which cannot in the case of most agricultural products be kept off the market, and therefore depresses farm prices in the exporting country even farther than would have happened otherwise.

It might be argued that it would be less hazardous to give the foreign producers sums of several millions by vote of Parliament on condition that they bought British goods with the money, instead of trying ineffectively to augment their purchasing power through quotas. In fact there is no guarantee under the quota system that (*a*) the increase in price goes to the foreign producer, and (*b*) that if it does, he will use the money to buy goods from this country.

At a time when great difficulty was being experienced in obtaining revenue, it would have been preferable to adopt a tariff as a price-raising measure, because part at least of the increase in price would have benefited the Treasury instead of the importing firms.

There are other objections to quotas for restricting supplies. Under the present system of national quotas, the allocations are made on a more or less uniform basis; either a decrease of so much from a certain base or a percentage reduction all round. Such a method is almost bound to be uneconomic. It makes no difference between the efficient and the non-efficient. It is the same problem as with the elimination of the individual producer; it prevents the marginal supplier going first as would happen with a tariff. It would be a superhuman task to attempt this by means of quota adjustments; in any case, discrimination in the granting of quotas on such a basis would cause an immense amount of international ill will. As it is, quotas, if extended, are likely to lead to more friction than tariffs.

Again, there is in many cases no reason why national quotas should result in an increase in the price of the home-produced commodity. Take bacon, for example. Disregarding the special market in this country for English dry-cured bacon, which is now more or less satisfied, there is little doubt that Danish tank-cured bacon is preferred by the consumer to tank-cured British bacon of the present variable quality.[1] If

[1] It is true that under the Bacon Scheme the provision of adequate supplies of good English tank-cured bacon is envisaged, though not guaranteed.

Danish bacon enjoys a premium of 1*d.* per lb. and if the Danish supply of this is restricted by a quota, some consumers may be willing to pay an extra 2*d.* per lb., and eat less, rather than eat the poorer quality home product. The Dane therefore might get more money without raising adequately the price of the home product. There is practically no information available regarding consumers' demand, and it is quite possible, therefore, that quota restrictions may raise the price of imported products without increasing the price of the home-produced commodity.[1]

On the other hand, if the demand for bacon were very inelastic and if the consumers were willing to change readily from one quality to another, then a small reduction in supply might result in a very great rise in price. It is this lack of knowledge of what effect a quota may have on the price of a particular commodity that makes this form of supply restriction a particularly dangerous and unstable basis on which to plan a long-term agricultural or industrial policy.

The quota method also creates extraordinary difficulty when account has to be taken of different grades or types of any commodity demanded by the importing country. If, for instance, wheat imports were to be subject to quota restriction, separate quotas would have to be established for soft wheat for biscuit flour, wheat for feeding, and hard wheat for bread if shortages of one or other type were to be avoided. This would present a difficult administrative problem. Similar difficulties may be found with the various types and qualities of beef, veal, mutton, lamb, pig products, butter, and practically all agricultural products. Imagine a Board attempting to allot import quotas to suit the demands of numerous types of malting barley. Under a tariff, however, it would be possible to avoid these difficulties.

Another consideration is that quota restrictions will 'canalize' trade to an excessive degree; indeed, this is regarded as one of the advantages of the system by some of its advocates. Quotas for imports can only be worked successfully where there is some sort of bottle-neck organization, such

[1] Since this was written, a considerable rise in the price of Danish bacon, unaccompanied by a corresponding rise in British *baconer* prices, justifies this serious objection to the quota as a means of raising home farm prices.

as the Danish co-operatives, the Australian Meat Export Control Board, the New Zealand Dairy Produce Export Control Board, and so on. The voluntary beef import restriction scheme has already resulted in an agitation in the Argentine for the State to take control of the exporting houses. The use of quotas must inevitably lead to agreements between the exporting countries—informal to begin with but possibly later becoming genuine international cartels. Such development would diminish the strength of Great Britain's bargaining position as a single important buyer facing competing sellers, and might lead to our getting worse terms for imports in subsequent years.

Such a possibility is evidently not so far distant as many think. 'The voluntary bacon agreement gives reason to think that these matters may eventually be settled on co-operative lines, possibly by some sort—a new sort—of cartel embracing all suppliers, with the Government content to hold the ring and secure fair play.'[1] At the moment, supply conditions have given the balance of bargaining power to this country, but it is rash to think of this situation as permanent. It seems almost suicidal to encourage the combination of those who supply our market. We have benefited because these suppliers had to compete for our favours. If supplies are cut down to meet the present temporary low level of demand, and then a recovery of trade occurs, the inflexibility of quotas and the swing of the balance of power may result in a rise in food prices that may be disastrous to the hopes of further trade recovery. It would be infinitely cheaper in the long run to permit the degree of competition allowed by tariffs than to stifle all competition by means of quotas.

The advantages of the quota as a temporary emergency measure to prevent flooding of the market by goods cheapened by violent exchange depreciation or by subsidies in the country of origin have already been explained. For long-term purposes, the quota is a dangerous weapon. Its success depends on absolute accuracy in the estimation of demand, as well as on exact knowledge of the interactions of various prices, the effect of supply on price and of price on supply,

[1] Speech by Major Walter Elliot, M.P., to the Manchester Wholesale Provision Association, reported in *The Grocer*, p. 89, February 11th, 1933.

both at home and abroad. An attempt to meet the danger of error in estimating demand is made in the case of the British bacon quota arrangements by a periodical revision of quantities. But the necessity of such revision makes the administration exceedingly irritating for the exporting countries. It has been repeatedly urged at international conferences that changes in tariff levels, suddenly carried out, are most injurious to trade. This is even more so in the case of quantitative restrictions. Countries can accommodate themselves to a tariff fixed for a reasonably long period, but any measure involving constant readjustments of production must always create great difficulties for producers. Supply adjusts itself to a certain level of protection after a time, but unforeseen changes create new disturbances similar in character to those caused by the original application of protection.

The whole argument that quotas can be used for planning international production falls to the ground if there have to be frequent variations in the amount of the quotas agreed upon.

When quotas are considered as a means of price stabilization, the same handicap appears. In principle they should work excellently, given perfect information on future variations in demand and knowledge of supply-price relationships. If demand were a known factor, and included in this were the fluctuations caused by changes in the value of money, then it would be relatively simple to stabilize prices by stabilizing supplies. But again it is impossible, unless rationing is brought into force, to estimate demand so accurately in advance. An error in estimating the necessary supply of, say, beef will take eight years at least to make good.[1] There is an immense amount of risk in using quotas as a long-term measure to stabilize prices. The necessary knowledge does not exist for their successful working.

Quotas are not suitable for commodities in which price changes are mainly the result of the fluctuations in home supplies. Take potatoes as an example: imports are large when the home crop is small and prices are high; imports are

[1] The change in the beef supply of the United States, Australia, and possibly the Argentine, occurs eight years after the original incentive to change takes place. High beef prices increase market receipts about eight years later; low beef prices cause a decrease in market supplies about eight years later.

small when the home crop is large and prices are low; thus the variable volume of imports diminishes price fluctuations. An effective tariff allows the automatic adjustment to demand; an import quota must be calculated when the volume of the home crop is known, i.e. in October, and that would be five months too late for the foreign producer to plant his crop. Similar conditions obtain in a large part of the fruit and vegetable market, where home production rather than imports is the more important supply factor in price determination.

On the other hand, where price fluctuations are due more to variations in the imported than in the home supply, there is greater need for stability in imports. But for many of these, such as butter, eggs, lamb, and beef, demand is so variable a factor that the quota is a dangerous long-time instrument. This leaves the quota for use only for those commodities the bulk of which is imported and for which the demand is inelastic; wheat is about the only one in this class, and it is the one commodity for which the quota has been decisively abandoned by the Government.[1]

The quota, if it is to be used as more than an emergency and temporary remedy, requires infinite care and skill in its application. Its usefulness is limited; it cannot be applied in a haphazard fashion. Any error in calculation may result in an excessive price rise. Now the whole practicability of giving protection to British farming rests upon the acquiescence of the urban dweller; and an apparently big rise in the price of a commodity due to supply restriction may alienate his sympathy.

It is worth while quoting the considered opinion of the Economic Committee of the League of Nations on the various devices for the restriction of imports.[2]

'Imports can certainly be reduced by means of increased duties, surtaxes, prohibitions, quotas, restrictions on foreign exchange—even so there is a limit which must not be exceeded—but this reduction is inevitably accompanied by a contraction of exports.

'At the present time, the majority of agreements tend to restrict rather than to increase reciprocal advantages, and some even appear

[1] The present wheat subsidy is called a Wheat Quota, but it is a quota in name only.

[2] Economic Committee Report to the Council of the Work of the Thirty-Fourth Session, Geneva, June 1932.

to sanction explicitly and in advance the reciprocal right of the parties to harm each other. Moreover, certain of the most recent agreements are based on reciprocity, whereas, until recently, the most-favoured-nation clause was, we might say, the basis of all commercial treaties.

'Even when advantageous treaties are still in force, the guarantees which they contain become illusory as a result of the unforeseen measures introduced to meet the crisis. What is the use of a consolidated duty if an exchange surtax is imposed? What good is freedom of trade guaranteed by the treaty but actually abolished or reduced by prohibitions or quotas? What becomes of all the guarantees in the best treaty if buyers cannot obtain the foreign exchange necessary to pay for their purchases? Finally, what remains of this equality of treatment which the most-favoured-nation clause was designed to ensure?

'The Economic Committee considers that, although in some cases *exceptional* conditions may necessitate the application of the quota system, *it should be a purely temporary* expedient. Pending its disappearance, it is in any case essential that it should be attenuated in every possible way.'[1]

In the spring of 1933 the International Chamber of Commerce issued a plea for the reconsideration of the quota policy and urged that such temporary expedients should not be built into the permanent structure of national economic protection. Their report asserts that more damage has been done to international trade by the recent new devices for protection of domestic production and the restriction of imports in the last two years than by the growth of customs tariffs in the preceding half-century.[2]

Mr. Neville Chamberlain, in defending before the World Monetary and Economic Conference the quantitative regulation of imports of certain agricultural supplies adopted by the British Government, sought to meet objections based on the dictum of the League Economic Committee by making a distinction between quotas obstructive to world trade and those which are imposed as part of a system of economic planning. He said:[3]

'As regards quotas, the United Kingdom Delegation consider that a clear distinction should be drawn between import quotas arbitrarily imposed by the importing country as an additional measure of protection

[1] Italics are those of the present writers.

[2] Draft Report to be submitted to the Monetary and Economic Conference by the International Chamber of Commerce, Paris, 1933.

[3] *The Times*, June 15th, 1933.

for the home producer, and production or market quotas established in pursuance of international agreements to regulate production or marketing so as to restore and maintain a remunerative level of wholesale prices for producers in all countries. The United Kingdom Delegation are strongly in favour of the progressive abolition of all arbitrary import quotas. On the other hand, the disastrous slump in the prices of certain primary commodities, particularly of agricultural products, raises special problems for which in their view the most practical solution is to be found in international agreements for the better regulation of production and marketing by the countries principally concerned.'

The Reorganization Commission for Pigs and Pig Products stated that

'The quota is an untried instrument in this country. By other countries it has been used as a temporary expedient, to be used in a period of crisis.... In no country has it yet been regarded as a constructive instrument which, under suitable conditions, can play a useful part in the economic development of both exporting and importing countries.'[1]

It is just for this purpose that a quota policy is unsuitable; it is essentially a short-time emergency measure.

It is generally known that the quota policy was adopted in Great Britain because of political expediency and not on merit. It may prove to be the correct policy, but if so it will be chance rather than wise direction which has given us this bit of machinery.

The foregoing paragraphs have discussed briefly the methods by which the State could restrict the imported supply of agricultural products.

The first step taken by the Government in the direction of import restriction was the abandonment of the gold standard in September 1931. Rates of exchange dropped in terms of gold-standard currencies, and it was expected that imports, agricultural as well as industrial, would be checked and that agricultural prices would rise. Various factors militated against this: the currencies of some of the countries, such as Denmark, which export food products to the United

[1] *Report of the Reorganization Commission for Pigs and Pig Products*, p. 20, Economic Series, No. 35, Ministry of Agriculture and Fisheries, 1932.

It may be added that the Commission was not asked to report on the relative advantages of a tariff or a quota, but was instructed to draw up a workable quota scheme. A tariff so far as Danish bacon is concerned has since been definitely ruled out by the Anglo-Danish Agreement.

Kingdom, were tied to sterling, and exchange rates in relation to sterling changed very little. Only a few countries remained on the gold standard. The second factor lay in the abnormal supply position: there were large stocks of commodities in various parts of the world and production was at a high level; moreover, the volume of unemployment meant a shrinkage in demand. In these circumstances, and with no organization or agreement between producers of a commodity in different countries, it was possible to pass back, for the time being, the burden of the depreciated exchange. Great Britain had the whip hand so far as bargaining power went.

However, if the abandonment of the gold standard did not result in an increase in prices, it certainly acted as a very efficient brake on the downward trend. The following table shows the movements in prices in various countries during 1931 and 1932. During 1932, wholesale prices in this country were only 2·6 per cent. lower than in 1931; in the gold-standard countries the fall continued more rapidly. The mitigation of the effects of deflation by the abandonment of the gold standard by Great Britain has probably done more than any other single measure to prevent a further disastrous fall in farm prices.

TABLE XXIV

Index Numbers of Wholesale Prices in Various Countries, 1930–2

	1913	*1930*	*1931*	*1932*	*Percentage decline between 1931 and 1932*
Gold Standard Countries:					
Holland	100	117	97	79	−18·6
United States	100	115	94	76	−18·5
Germany	100	125	111	96	−13·0
France	100	543	462	407	−11·9
Italy	100	383	328	304	− 7·6
Non-Gold Standard:					
Canada	100	136	114	105	− 7·7
United Kingdom	100	114	96	94	− 2·6
Sweden	100	122	111	109	− 1·8
Denmark	100	130	114	117	+ 2·6

In November 1931 the Government granted a high degree of protection upon certain fruits and vegetables under the

Horticultural Products Abnormal Importations Act. The President of the Board of Trade was empowered to place duties up to 50 per cent. on luxury fruits, flowers, and vegetables. The Act was promoted as a revenue measure undertaken at a time when it was imperative to correct the adverse balance of trade; it was not undertaken primarily in the interests of agriculture. The orders were for one year only, but they were made permanent when they came up for review by the Import Duties Board.

On March 1st, 1932, the Import Duties Act came into force, imposing a 10 per cent. *ad valorem* duty on foreign imports. There was, however, a free list on which the most important agricultural food imports figured—wheat, beef, mutton, lamb, pig products, wool. Barley, oats, eggs, butter, and potatoes were subject to duty, but as the bulk of these came from Empire sources and were therefore tax-free, the Tariff Act was not of much help to farming.

The import duties, though of little benefit to the ordinary farmer, did have a considerable effect on the imports, prices, and home production of horticultural products; the following extracts from the *Agricultural Market Report* indicate that the short-time effect of tariffs as a means of controlling supply is by no means negligible.[1]

Imports: 'The quantity of cauliflowers and broccoli received from France, Italy, and the Netherlands was reduced from 41,244 tons in 1931 to 14,929 tons in 1932. . . . Tomatoes from foreign sources amounted in 1931 to 108,403 tons, and in 1932 to 81,020 tons. Imports of strawberries in 1932 at 2,040 tons amounted to less than one half the quantity received from foreign sources in 1931, while cut flowers received from France and the Netherlands were reduced from 8,467 tons in 1931 to 3,480 tons in 1932.'

Prices: 'In 1932 there was a marked improvement in prices, the average prices of practically all home-produced commodities showing appreciable increases over those of 1931, and in many cases rising above the average for 1930.'

Home production: 'The agricultural returns collected by the Ministry in 1932 showed that in the case of most of the more important vegetables there was an appreciable increase in acreage. . . . According to information received there has been a marked increase in the production of flowers and salad vegetables, and a considerable extension of the area

[1] *The Agricultural Market Report*, May 26th, 1933.

under glass. The Ministry also understands that in the case of soft fruits the grubbing of acreage which was being carried out owing to the low price level was stopped in anticipation of the effect of the tariff.'

In March 1932 the Wheat Act was passed enacting a levy on flour, collected from the millers, and distributed to the growers of British wheat. It was an ingenious and well-disguised subsidy.

The bitter pill of the Import Duties Act (with its free list) was delivered in a substance which looked like jam: expectations from the forthcoming Ottawa Conference. Hopes were raised; farmers' representatives were appointed to voice their interests; there was to be a new era, not of cheapness nor of control, but of the realization for agriculture of that protection which had been granted to other industries.

The main anxiety of the British farmer was then, as now, the future of live-stock product prices. Many of these had been left on the free list of the Import Duties Act, and much was expected from the Ottawa Conference.

The 10 per cent. duty on foreign eggs was changed to one of 1*s*., 1*s*. 6*d*., and 1*s*. 9*d*. per great hundred, depending on their weight. So far as Danish eggs were concerned, this resulted in a lowering of the duty below 10 per cent. for that season of the year in which is the peak of Dominion imports. The duty on foreign butter was changed from 10 per cent. *ad valorem* to 15*s*. per cwt.; the duty on foreign cheese was raised from 10 per cent. to 15 per cent., and certain changes were made in the duties for condensed milk and other preserved milks.

Butter production is not an important item for most farmers in this country, and it would be necessary to raise prices very considerably before it became an attractive alternative to liquid milk or cheese production. The new 15*s*. per cwt. duty resulted in a slight rise in the rate of duty from the previous 10 per cent., to 12 per cent. on Danish butter, 14 per cent. on Argentine, and 16 per cent. on Siberian, a weighted average of 13 per cent. It is true that a specific duty is more effective during the period of low prices, and therefore 15*s*. per cwt. on Danish butter, while averaging 12 per cent. during the year, amounted to a 15 per cent. duty during the summer. Even if this duty had caused a rise in prices, it would not have

been sufficient to help the milk producer to any great extent; and in any case the duty was only levied on about one-half of the butter imports, since Empire supplies were to continue to come in free. The increased duty gave an advantage to the Dominion butter-producer, but is not of great importance to the British farmer.

The cheese market is much more important than the butter market for most British farmers. What did Ottawa accomplish for the British dairy farmer by raising the *ad valorem* duty on foreign cheese from 10 per cent. to 15 per cent.? Manufacturing milk prices in this country were based on the price of Canadian and New Zealand cheese prices, neither of which countries were subject to any duty. Empire cheese, free of duty, accounts for 87 per cent. of our cheese imports, the remainder being chiefly special types such as Swiss and Italian, which do not compete with British cheese. There was practically nothing in the Ottawa Agreements about dairy products which helped the British dairy farmer. In fact the declaration of the British Government that Empire dairy produce should have free entry for three years certainly prejudiced the future of the most valuable branch of British agriculture.

The agreements for meat supplies were hardly more encouraging. Pig products with one or two exceptions were left to be dealt with after the Pig Reorganization Commission had reported. The principles governing the proposals are given in the declaration by the United Kingdom Government contained in the Agreement with Australia.

(1) 'The present wholesale prices of frozen meat are at a level which has resulted in grave depression in the livestock industries of the United Kingdom and the Dominions. The depression is likely, if continued, to bring about a serious decline in production and consequent ultimate injury to the consumer.'

(2) 'Such a position is so serious that it is essential to take whatever steps may appear feasible to raise the wholesale prices of frozen meat in the United Kingdom market to such a level as will maintain efficient production.'

(3) 'The policy of His Majesty's Government in the United Kingdom in relation to meat production is, first, to secure development of home production and, secondly, to give the Dominions an expanding share of imports into the United Kingdom.'

Imports of *foreign* beef, mutton, and lamb were to be reduced during successive quarters of 1933 and 1934 according to the following scale:

TABLE XXV

Restriction of Foreign Beef and Mutton Imports, 1933–4, under the Ottawa Agreement

(Imports during corresponding quarter of the year ending June 30th, 1932 = 100.)

	1933				*1934*	
	Jan.– Mar.	*Apr.– June*	*July– Sept.*	*Oct.– Dec.–*	*Jan.– Mar.*	*Apr.– June*
Frozen mutton and lamb .	90	85	80	75	70	65
Frozen beef . . .	90	85	80	75	70	65
Chilled beef . . .	100	100	100	100	100	100

The limitations suggested by the Dominions on their future exports were not strictly binding and their phrasing is interesting. The Australian Government 'agrees to limit the export of frozen mutton and lamb to the United Kingdom for the year 1933 to an amount equivalent to the total imports from Australia during the year ended the 30th June, 1932'. Secondly, 'Australia undertakes to use its best endeavours to ensure that during the year 1933 the exports of frozen beef from Australia to the United Kingdom shall not be increased to an extent exceeding 10 per cent. of the quantities exported for the year ending the 30th June, 1932'.

New Zealand estimated the exports of frozen mutton and lamb for the season 1932–3 (October 1st to September 30th) at 200,000 tons, with a 5 per cent. increase in each of the following two years. 'For the calendar year 1933, you may take it that our shipments of frozen mutton and lamb will be the same as those of the twelve months ending 30th June, 1932.' . . . 'In frozen beef we estimate our exports for the season 1932–3 at not more than 22,000 tons, representing a maximum increase over the previous season of approximately 10 per cent.' In addition, consideration is to be paid to the best means of ensuring the more orderly marketing of meat.

Australia and New Zealand are the Dominions most directly involved in the meat agreements, although the Canadian Government are interested to the extent that they have asked

the United Kingdom Government 'to pass the legislation necessary to modify the conditions at present governing the importation into the United Kingdom of live cattle from Canada' and to make provision, under any scheme for the quantitative regulation of imports of bacon and hams, for the free entry of Canadian bacon and hams of good quality up to a maximum of 2,500,000 cwt. per annum. The average imports of Canadian bacon and hams for the last five years had been 332,000 cwt. The South African Government stipulated that His Majesty's Government in the United Kingdom, in applying any powers which they might obtain from Parliament for the quantitative regulation of imports of mutton and lamb into the United Kingdom, should make provision for the importation of South African mutton and lamb. Australia and New Zealand are under no obligation to regulate their shipments after the year 1933.

The new proposals reserve for the Dominions an increasing share of the United Kingdom market. A study of the past course of the trade in refrigerated meat suggests that the Ottawa schemes do no more than continue the trends in the meat trade which have been evident for some years, and so in fact afford no new protection.[1]

As regards the development of home production, Ottawa does not promise much for British agriculture. The net effect of the agreements on the imported supplies of meat is shown in the following table, assuming that each country fills its quota and that the seasonal variation in supplies from the various sources remains the same as in 1931–2. Total imported supplies—the Ottawa Agreements expressly recognize the 'close interrelationship of all kinds of meat in determining the price level'—will only be decreased when the maximum limitations have been achieved by possibly 3 per cent., as compared with 1931–2.

This merely brings the total imports back to the 1930–1 level, a reduction which could hardly be held to conform with the objective of restoring an 'economic' level.

Chilled beef is the British farmer's competitor; the Ottawa

[1] See 'The Ottawa Agreement and Meat Supplies', *Occasional Notes*, vol. i, No. 20, University of Oxford, Agricultural Economics Research Institute, October 1932.

Table XXVI

Reduction in Meat Imports into the United Kingdom under the Ottawa Agreement

	*Imports in 1931–2**	*Maximum permissible imports 1933–4**	*Percentage decrease*
	cwt.	cwt.	
Chilled beef	8,845,000	8,845,000	0
Frozen beef	2,505,000	2,383,000	−5
Frozen mutton and lamb . .	7,343,000	6,883,000	−6
Total: . .	18,693,000	18,111,000	−3

* July–June.

Agreement did not propose any reduction, though a voluntary and temporary reduction of 10 per cent. has since been agreed with the Argentine. While it is true that 1931–2 was a year of reduced chilled-beef imports and that immediate expansion from that level is deferred, the British producer requires an improvement of the 1931–2 beef prices, not a stabilization of those conditions.

Frozen beef is merely some 11 per cent. of the total beef requirements, and the shipments from foreign sources only amount to about 40 per cent. of the frozen beef imports, so that even a large reduction in foreign imports is not an imposing factor in improving the whole beef situation. In any case the possible increase in Empire supplies will detract from any small effect which the foreign restrictions might have on the market for home beef.

In mutton and lamb, the policy appears even less satisfactory. It was admitted in the House of Commons that the New Zealand and Australian suppliers have themselves been responsible for the wreck of the mutton and lamb market. The cutting down of foreign imports does not compensate the British farmer for the recent expansion in Empire supplies. Even a 6 per cent. reduction from the 1931–2 level leaves the imported supply higher than in any previous year.

A net reduction of 3 per cent. and the maintenance of imported supplies of beef and mutton at a high level are not encouraging to the British farmer.

The Ottawa Agreements were to last for five years, though there is a reservation in regard to eggs, poultry, and milk products that the United Kingdom Government may, after the expiration of three years, place restrictions either by tariffs or regulation of imports on Dominion as well as foreign produce. The British Government are also free to regulate meat imports from the Dominions after June 1934, except in the case of New Zealand, with whom agreements have been made for the 1934–5 export season.

The Ottawa Agreements must have made it plain, if it was not so evident beforehand, that British farming cannot expect much relief at the hands of Members of Parliament representing the urban voter. The British delegation set out to seek a freer market for the United Kingdom exports, and these exports are not agricultural products. It has also been made evident that if import concessions have to be made to the Dominions, these concessions must be made in those imports which form the bulk of the Dominions' trade, i.e. in agricultural products. The United Kingdom delegation desired a freer market for manufactured exports, while the Dominions wanted a preferential market in the United Kingdom for agricultural produce. The result was inevitable. The same fundamental situation wrecked the movement for Imperial preferences in 1903–6, but the considerations which then proved fatal to the Chamberlain proposals have been waived in favour of the Dominions, without apparently obtaining the advantages for British industry which Chamberlain envisaged.

It soon became evident that, so far as agriculture was concerned, the Agreements had been an admitted failure. Two months after Ottawa came the announcement by the Minister of Agriculture of a voluntary arrangement with the exporting countries for a further restriction of supplies for the Christmas market; wholesale prices had continued to fall and some immediate action became necessary.

South American shippers agreed to reduce their marketings of chilled beef by 10 per cent. rising to 20 per cent., and frozen mutton and lamb by 20 per cent., during November and December of 1932. The Australian and New Zealand Governments agreed to reduce their shipments of mutton and lamb during the same two months by 10 per cent. from the

corresponding months of 1931. These drastic reductions resulted in a slight temporary improvement in the Christmas market.

Then came the 'gentlemen's agreements' with foreign countries for the restriction of bacon and ham imports, first for two months starting from November 22nd, 1932, and then extended by stages until July 1933, by which time the quota regulation under the Pig Reorganization scheme was expected to be ready. These have brought about a 15–20 per cent. reduction in bacon and ham imports.

Arrangements were made with various foreign countries to continue the emergency reductions in imports of beef, mutton, and lamb, supplementary to the Ottawa proposals. But Empire supplies of frozen beef increased so considerably as to neutralize these reductions. Over the first six months of 1932 imports of chilled and frozen beef and of frozen mutton and lamb showed an actual net *increase* of 64,000 cwt. over the corresponding six months of 1932.[1] Even if the Empire limits its supplies to the estimates given at Ottawa and the supplementary agreements with the foreign exporting countries are maintained, it appears as if the imports for the second half of the year will only be about 6 per cent. less than in the second half of 1932. Though this is a greater reduction than could have been obtained under the Ottawa Agreements alone, the study of previous relationships of supply and price makes it very doubtful whether such a restriction can have any marked effect on the prices of British fat stock.

One of the more recent voluntary restrictions is a 20 per cent. reduction in the imports of milk products, such as condensed milks, dried milk, and milk powders, from foreign countries. But this again is quite a minor achievement, since only 2·3 per cent. of the imported milk enters in the form of the restricted products.

The help that is necessary for the British dairy farmer will not be forthcoming until there is some restriction on butter and cheese imports. The bulk of these come from the Empire and are immune for the next three years under the Ottawa

[1] For a fuller discussion and the actual data, see 'Quantitative Regulation of Beef, Mutton, and Lamb Imports in 1933', *The Farm Economist*, vol. i, No. 3, July 1933.

Table XXVII

Imports of Milk and Milk Products into the United Kingdom, 1931 (Converted to Milk Equivalent)

	Quantity	*Per cent. of total imports*
	million gallons	
Butter	2,381·0	86.0
Cheese	323·1	11·7
Condensed milk, sweetened . .	6·4	2·3
„ „ unsweetened .	14·1	
Milk powder	30·8	
Cream	13·6	
Milk, fresh	0·9	
Total milk in milk products . .	2,769·9	100·0
Condensed milk, skimmed . .	73·1	. .

Agreements. So the conviction is growing among farmers that the Ottawa Conference has been of doubtful value for British agriculture.

Finally, there are the trade agreements with Denmark, the Argentine, Germany, and Norway. So far as agriculture is concerned these may mean much or little: there is one very significant point, the pledge not to place a tariff upon Danish bacon. The British Government has still kept the right to restrict imports if necessary or desirable; it has only promised in principle to see that the various parties with whom agreements have been made get a fair share of the remaining trade, whether this is a reduced or an increased quantity. In bacon the share is 62 per cent. of all bacon imports. But the British farmer and the Dane read different intentions into the Agreement. To the Danes it means a reasonable regard for the present volume of trade. To the English advocates of self-sufficiency it appears to sanction such a reduction of global imports as to make the percentage meaningless, for 62 per cent. of nothing, or next to nothing, would be of small value to the Dane.

The danger of these trade agreements is also exemplified in the Trade Agreement with the Argentine. In this the British Government undertakes, for the next five years, to place no

duty or charge on Argentine beef. If the quota is ineffective in raising meat prices, the possibility of placing a tariff on foreign beef imports and distributing the revenue as a subsidy to the home producer is thereby ruled out. Just as the Ottawa Agreements had proved a stumbling-block before they were a year old, so the rigidity of these later trade agreements may be regretted at an early date.

What, then, has been the situation with regard to agricultural prices after some months of 'restricted' supplies? The following table gives the index numbers of prices of various commodities for the same month in the last three years, thus getting rid of any seasonal effects. Only pigs, fat sheep, and liquid milk were higher in 1933 than at the same time in 1932. Fat cattle have declined from 18 per cent. above pre-War prices down to the pre-War level; eggs from 7 per cent. above to 7 per cent. below; butter from 11 per cent. above to 9 per cent. below; cheese from 39 per cent. above to 11 per cent. below. The fall in price of store cattle, dairy cows, and store sheep betokens a serious lack of confidence on the part of the farmer; any hope of improved conditions should show itself in the prices of stores sooner than in the prices of fat stock; but this is not yet evident. Agricultural prices in general were 10 per cent. lower in April 1933 than in April 1932.[1]

The Government has not hitherto restricted supplies with enthusiasm. But under the Agricultural Marketing Act 1933 its powers have been augmented. By this the Board of Trade *may* make an order regulating the imports of a commodity if

[1] Speaking in the House of Commons on July 12th, 1933, the Minister of Agriculture said: 'The prices of beef were far from satisfactory in this country. In June, 1932, the price of fat cattle in England and Wales was 49*s.* 3*d.* a live cwt., and in June, 1933, it was 39*s.* 6*d.*; the corresponding prices for second quality were 43*s.* 9*d.* and 35*s.*, and for fat cows 34*s.* 9*d.* and 27*s.* 7*d.* Those figures were the justification for the action in restricting supplies which the Government took last autumn. They had taken 19,500 tons of chilled meat off the market. Where would the market be if it had had 19,000 tons more of chilled beef placed upon it? He would ask for sanction for further steps which, in the light of those figures, were inevitable. There must be a further limitation of imports. They had made arrangements for the last quarter for a reduction of 2 per cent. below the Ottawa figures. For the first half of this quarter they had arranged for a reduction of 10 per cent., and for the second half of the quarter, which was now coming on, he would arrange to bring into effect a reduction of 12½ per cent. There was still the last quarter of the year to go, and it might be that a still further reduction would be necessary.'

Table XXVIII

Index Numbers of Agricultural Prices in April 1931, 1932, and 1933

(April 1911–13 = 100)

	1931	*1932*	*1933*
Wheat	68	79	68*
Barley	98	101	82
Oats	85	105	82
Fat cattle	120	118	100
Fat sheep	137	103	116
Bacon pigs . . .	123	100	112
Dairy cows . . .	128	119	106
Store cattle . . .	123	115	99
Store sheep . . .	131	89	84
Store pigs . . .	163	104	123
Eggs	118	107	93
Milk	153	150	153
Butter	115	111	91
Cheese	124	139	111
Potatoes	182	239	87
Wool	84	69	62
All agricultural products .	123	117	105

* Not including the subsidy of about 20*s*. per qr.

an agricultural marketing scheme is in force or in course of preparation, and if it appears that reorganization cannot be fully effected without such regulation. The restriction may be imposed by the President of the Board of Trade after consultation with the Minister of Agriculture and the Secretaries of State concerned with agriculture in Scotland and Northern Ireland. If the industry sets out to increase its efficiency, it will be granted effective protection; protection and reorganization are to be complementary.

The Act is, of course, only permissive, and it is impossible to tell to what extent it may be used. The clause relative to the effect of any regulation of supplies on the interests of the consumers or upon commercial relations between the United Kingdom and other countries may be interpreted very narrowly or very broadly.

The present scheme for the development of the pig industry illustrates the difficulties which are involved by the complementary nature of protection and efficiency. The intention is

that imports should be cut down by reducing the import quotas as home production increases. A study of the pig industry in the past shows that this increase cannot be accomplished without a considerable rise in the price of fat pigs. This rise cannot be achieved without a limitation of imports

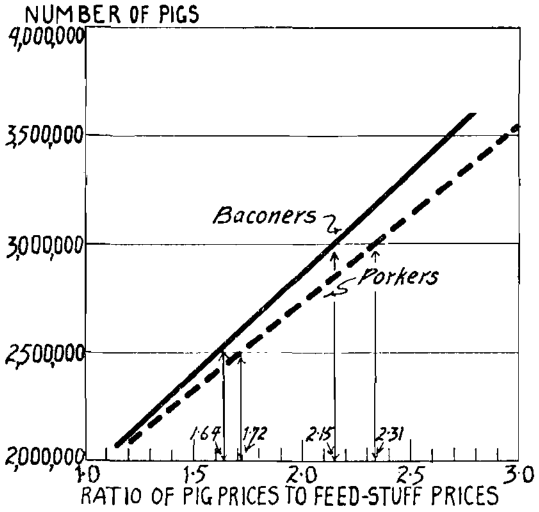

FIG. 6. The Relationship of the Ratio of Pig Prices to Feeding-stuff Prices and the Subsequent Number of Pigs, 21 months later, in England and Wales, 1923–31

greater than the present voluntary reductions, so that regulation must precede, not follow, the development of the home industry. A rough approximation of what rise in price will be necessary *with the present standards of efficiency* can be obtained from the foregoing diagram. The variations in the numbers of pigs in this country depend on the ratio of pig prices to feeding-stuff prices twenty-one months previously; when pigs are high priced relative to feeding-stuffs, the pig population increases; when the ratio of pig prices to feeding-stuff prices is low the number declines. In the past the price of a score (20 lb.) of a porker has had to be 1·72 times[1] the price of a cwt. of feeding-stuffs to maintain the pig population of England and Wales at about 2,500,000. These ratios had to

[1] A ratio of 1·64 for baconers.

be raised to 2·31 for porkers and 2·15 for baconers in order to raise the pig population to 3,000,000. To raise the pig population to 4,000,000, and supply about 40 per cent. of our bacon and ham requirements, the price of a score of porker or baconer would have to be more than three times the price of 1 cwt. of feeding-stuff. With feeding-stuffs at 7*s.* 6*d.* per cwt., porkers would have to be about 20*s.* per score. Would the body appointed to supervise the consumers' interests allow such a rise in prices? Will the average Member of Parliament tell his constituents to keep quiet if the price of bacon begins to soar because of the control schemes? Or will he use his influence to get the price down by admitting more cheap bacon?

It has been calculated that to raise the pig population to 3½ millions without raising the level of pig prices would necessitate something like a 40 per cent. increase in the efficiency of the pig industry. This must take many years to accomplish, and its achievement may never take place without a preliminary rise in prices. The situation rests in the hands of the body which determines the volume of imports. To what extent will they be guided by consumers' interests or by producers' interests? There is only the past to indicate the possible answer, and past experience is not encouraging for the farmer, who has been led to expect a substantially increased price for home-produced bacon.

So far the discussion has centred on the restriction of imported supplies. There is still the possibility of limiting home production in order to raise the level of prices and increase the net output of the industry. Under the Addison Marketing Act of 1931 no direct powers for the restriction of production were granted to organized producers. Under the Elliot Marketing Act of 1933, powers have been given not only to regulate the quantities, kinds, varieties, and grades of any commodity that may be sold but also to regulate the production of a farmer by reference to the quantity and nature of his production in the past (Part III, cl. 9).

The danger of giving powers to producers' boards to restrict output cannot be over-emphasized. The sole reasons for asking the urban voter to subsidize or 'hold the ring' for the farmer are the necessity for growing more food and for employing more people and increasing the rural population. Is

the deliberate restriction of the output of any agricultural commodity likely to increase the strength of the farmer's demand for help? There are many other reasons against restriction of output, but this, the possible alienation of the town-dweller's sympathy, may become the most important from the purely political point of view.

The time is not yet ripe for the centralized control of British farming through marketing. Mixed farming, which predominates in this country, in order to be successful depends on the careful balancing of different interdependent enterprises. Disjointed control of production exerted by different commodity marketing boards without any reference to the varying conditions on each farm must result in less efficient use of land, labour, and capital.

Even if restriction of production could be justified on certain grounds, that does not mean that the principle can be applied to all commodities in the hope of raising the total returns to the producers. In the case of commodities such as butter, beef, mutton, and lamb, for which demand is extremely elastic, a restriction of output would probably not result in increased total returns.[1] The increase in the price of the product would not be sufficient to offset the decreased quantity sold off the farm.

It is for this reason that New Zealand is unwilling to agree to any restriction on the production or export of butter. The elasticity of the demand for butter is probably such that a diminution in supply would not result in a rise in price sufficient to increase or even maintain the present total returns. This would have a serious bearing on New Zealand's external debt problems. To overcome the insufficient rise in the price of such products the British Government would have to guarantee a sufficient rise in price, but they are apparently unwilling to do this.

Again, restriction of home output might be justified if the prices of any particular commodities were out of line with others. But in Great Britain the level of most agricultural prices has been above those of industrial commodities since

[1] This depends not only on the elasticity of demand but also on the cost of production curve; it is safe, however, to assert that where the demand is very elastic, restriction of output would not increase the total returns.

the beginning of 1929 (Fig. 7).[1] Some of them—wheat, barley, oats, and wool—have been consistently lower. Yet these are not the commodities to be restricted: wheat production is being encouraged purposefully; barley production, according to the speeches made in Parliament when beer was reduced 1*d*. per pint, is to be expanded; restriction of oats would handicap the whole live-stock industry which forms the bulk of British farming. A rise in wool prices would obstruct the woollen industry in its attempts to regain its

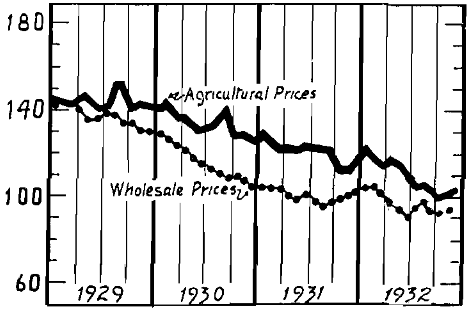

FIG. 7. Index Numbers of the Prices of Agricultural Products and of All Commodities, 1929–32. (1911–13 = 100)

position in the export trade. A general rise in food prices is similar to a rise in the prices of the raw materials of an industry; it might be a benefit to six persons in every hundred in the country but a handicap to the other ninety-four.

The Agricultural Marketing Acts may be sound in principle in so far as they encourage organization of producers, regulate the movement of products to market, regulate the marketing agencies to whom certain functions may be assigned, restrict the sale of inferior kinds and grades of produce, supervise the terms of sale, determine how the product is to be graded, marked, packed, stored, and advertised, encourage research and education, and guide production by the intelligent use of market information.

They may even permit the 'fixation' of prices, but unless it is realized that the limits set by supply and demand cannot

[1] The Ministry of Agriculture's index number of the prices of farm products and *The Statist*'s index of wholesale prices.

be exceeded with impunity, schemes under the Acts will inevitably break down. If statutory prices are to be fixed by boards of producers, it would be well to recall the lessons taught by price-control in the War. Admittedly conditions were different then, but the community of interest which facilitated control in those days would not hold in times of peace. It was learnt that price-control for one commodity inevitably led to price-control for all commodities. Control also could not be confined to one stage alone; it eventually covered farm, wholesale, and retail prices. In fact it may lead to the fixation of middlemen's margins, the consolidation of inefficiency from which the retail trade is suffering to-day, and high costs of distribution.[1]

But in so far as the Acts are used to restrict production by other means than price, or, to put it another way, to raise price artificially, they raise vast difficulties, and the policy which they embody may result in the withdrawal of the city voter's support from agriculture.

[1] See p. 18.

CHAPTER X

ECONOMIC RECONSTRUCTION

Of the factors bearing on the efficiency of farming, one for which the State must bear responsibility is the tenure of land and the provision of permanent equipment. The State has always intervened in the former, and if the present system is inadequate to present needs the State must deal with the matter.

The peculiarly English system of landlord and tenant has rendered great services in the past. But it is admittedly declining, and this has raised serious problems for two-thirds of the farmers of Great Britain. The question of tenure has also a close relation to the provision of credit.

Before considering what changes may be desirable, it is well to consider some of the special conditions of our time which have a bearing on the question.

The first consideration is that agriculture is now being subsidized to a greater extent than at any time in the last hundred years, and the objection may be made that too much of the benefits will be passed back eventually to the landlord in increased rents. In actual practice the benefits of increased prices are probably spread fairly well throughout the community, the shopkeepers, merchants, labourers and others getting their share; but the objection has political force and may well tip the balance against any attempt to resuscitate the landlord-tenant system.[1]

The second consideration arises out of proposals for the control of the industry. The general desire for higher prices

[1] The movement of rents in recent times does not seem to show that a general improvement in agricultural returns benefits the landlord to any serious extent, at any rate over a short period. During the War years, agricultural prices rose to three times their pre-War level, yet it appears that rents did not in general rise more than 20 or 25 per cent. It must be remembered, however, that when land was sold to occupiers at that time, the selling-price was often considerably enhanced. Instead of getting his return in higher rents, the landlord achieved the same by sale at high prices. Since then rents have declined—admittedly not so much as farm prices, but then they did not rise to such heights—and are now practically on the same level as the prices of agricultural products. Between 1914 and 1920 the benefits of higher prices were distributed throughout the countryside.

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Before considering what changes may be desirable, it is well to consider some of the special conditions of our time which have a bearing on the question.

The first consideration is that agriculture is now being subsidized to a greater extent than at any time in the last hundred years, and the objection may be made that too much of the benefits will be passed back eventually to the landlord in increased rents. In actual practice the benefits of increased prices are probably spread fairly well throughout the community, the shopkeepers, merchants, labourers and others getting their share; but the objection has political force and may well tip the balance against any attempt to resuscitate the landlord-tenant system.[1]

The second consideration arises out of proposals for the control of the industry. The general desire for higher prices

[1] The movement of rents in recent times does not seem to show that a general improvement in agricultural returns benefits the landlord to any serious extent, at any rate over a short period. During the War years, agricultural prices rose to three times their pre-War level, yet it appears that rents did not in general rise more than 20 or 25 per cent. It must be remembered, however, that when land was sold to occupiers at that time, the selling-price was often considerably enhanced. Instead of getting his return in higher rents, the landlord achieved the same by sale at high prices. Since then rents have declined—admittedly not so much as farm prices, but then they did not rise to such heights—and are now practically on the same level as the prices of agricultural products. Between 1914 and 1920 the benefits of higher prices were distributed throughout the countryside.

be exceeded with impunity, schemes under the Acts will inevitably break down. If statutory prices are to be fixed by boards of producers, it would be well to recall the lessons taught by price-control in the War. Admittedly conditions were different then, but the community of interest which facilitated control in those days would not hold in times of peace. It was learnt that price-control for one commodity inevitably led to price-control for all commodities. Control also could not be confined to one stage alone; it eventually covered farm, wholesale, and retail prices. In fact it may lead to the fixation of middlemen's margins, the consolidation of inefficiency from which the retail trade is suffering to-day, and high costs of distribution.[1]

But in so far as the Acts are used to restrict production by other means than price, or, to put it another way, to raise price artificially, they raise vast difficulties, and the policy which they embody may result in the withdrawal of the city voter's support from agriculture.

[1] See p. 18.

CHAPTER X

ECONOMIC RECONSTRUCTION

Of the factors bearing on the efficiency of farming, one for which the State must bear responsibility is the tenure of land and the provision of permanent equipment. The State has always intervened in the former, and if the present system is inadequate to present needs the State must deal with the matter.

The peculiarly English system of landlord and tenant has rendered great services in the past. But it is admittedly declining, and this has raised serious problems for two-thirds of the farmers of Great Britain. The question of tenure has also a close relation to the provision of credit.

Before considering what changes may be desirable, it is well to consider some of the special conditions of our time which have a bearing on the question.

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is leading to attempts to control price. If, however, higher prices are achieved, and if they are not to defeat themselves by increasing production, control of production must follow, and it is reasonable to argue that public ownership of the land offers the most efficient means of controlling production.

A third consideration is that much land now requires further capital for reconditioning, drainage, and improvements of various kinds which will not be provided by the landlord or owner-occupier under present conditions. If the necessary capital is to be supplied, as many economists have urged, from public funds, the question of increment arises. The State will probably only be prepared to put adequate money into land improvement if the increment due to such improvement accrues to the community at large. It may be argued that the State has already absorbed large quantities of capital from the land in the form of death duties, and that the proceeds of these should be applied to capital expenditure on land improvement, and not, as at present, to ordinary revenue purposes. Unfortunately the Exchequer is not likely to be moved by the abstract justice of this argument at a time when revenue is hard to raise.

Fourthly, State expenditure on roads has created in recent years large increments of value on land opened up by road construction for building development. This increment goes to the fortunate owners of land. The situation is of the same order as that created by the railway construction in the middle of the last century, when landowners made large fortunes from the compensation paid by the railways and by the enhanced value of land brought into closer contact with the great population centres.

Fifthly, State interference in special branches of agriculture may eventually create enhanced land values. Examples are the hops scheme, which tends to create a monopoly for existing growers,[1] and the subsidies available for farming through the assistance given to wheat and beet.

Some have put forward an alternative to individual landlordism in the formation of corporate groups of estates. The advantages would, it is claimed, lie in the reduction of over-

[1] Existing hop-growers have already at the recent Public Inquiry asked for such a monopoly by demanding powers to prevent any increase of acreage.

head costs by the more efficient use of labour and equipment. A second argument for this type of organization is often advanced on the grounds that by the formation of limited companies landlords would avoid death duties. This, however, has no foundation; the formation of limited liability companies does not avoid death duties; it is true that a company does not die, but death duties are paid on shares as on land. The advantages of forming estates into companies do not arise from the avoidance of death duties but from relief of certain other taxes. The *Journal of the Land Agents' Society* gives the following as general benefits:[1]

'Under a reclaim of tax for maintenance, improvements are not admitted, but in the case of a company, improvements having been made, the money is not available for distribution as profits, and is, therefore, not assessable for surtax.

'The owner of an estate, as managing director receives a taxation allowance on the amount of his earned income as director, which he cannot claim as a mere owner.

'A reclaim of tax is possible on account of management expenses of a company at the full rate in the £, and this would include directors' fees, secretary's salary, and other office expenses.

'In the case of the maintenance and education of children, or other family allowances, the settlement of debentures or preference or ordinary shares is a much more simple matter than a charge on real estate.

'The valuation of an estate in the case of the death of an owner is a much more troublesome and argumentative business than the valuation of shares in a company, and is a much more costly thing in fees and in estate duty.'

But the proposal to form groups of estates into companies does not surmount those factors leading towards State control of the land. The old objection persists that subsidies to agriculture must go eventually to the landlord; the formation of large land companies might possibly intensify it.

It is unlikely that the economies in management would be sufficiently great to make it possible for groups of estates to supply the capital which cannot be provided by the individual landlord at the present time. The following figures bring out the real problem; admittedly they give figures for a small area, but they are probably representative.[2]

[1] *Journal of the Land Agents' Society*, vol. xxxii, No. 5, p. 354, May 1933.

[2] In the same paper the writer gives figures for 276,136 acres in 1929 which

TABLE XXIX

*Rents and Outgoings on 42,770 Acres in 1913–14 and 1928–9**

	Total rental	Outgoings		Net returns	
	£	£	per cent. of rental	£	per cent. of rental
1913 . .	40,667	13,013	32	27,654	68
1914 . .	40,881	13,491	33	27,390	67
1928 . .	46,867	25,914	57	20,953	43
1929 . .	45,800	26,106	57	19,694	43

* Dampier, Sir William, *The Economics of Rural Landowning*, Agricultural Economics Society, 1930.

In 1913 and 1914 rents on 42,770 acres amounted to £40,774, on which the outgoings amounted to about 33 per cent. In 1928–9 rents were only about 11 per cent. higher, but outgoings had increased almost 100 per cent.; they thus accounted for 57 per cent. of the gross rent as compared with 33 per cent. in the earlier years. In order to bring net returns to the pre-War proportion of the rental, when the net returns were possibly sufficient to provide the capital fund necessary for the proper upkeep of the estate, outgoings would have to be reduced by about £11,000, or 42 per cent. Can this be achieved by economies in management? Even optimists might not expect much more than a 5 per cent. saving in this way.

Many corporate estates have not proved successful. Sums totalling several hundred thousands of pounds have been lost in single companies. Many factors which are calculable in most businesses are incalculable in farming. Experience taught one extremely successful business man 'to appreciate the fact that the precision and accurate forecasting which he had applied to commerce could not be applied to agriculture in which pursuit the weather, rapidly fluctuating prices of live stock and produce, disappointing yields, narrow margins which make all the difference between a reasonable profit and a heavy loss, and, not least, the human element in the form of the agricultural labourer played such all-important parts'.

The alternatives to the landlord-tenant system are practi-

give almost similar rates for outgoings and net returns as those for the above 42,770 acres.

cally only two in number, owner-occupancy or State ownership. Owner-occupancy has increased since 1914. It has its disadvantages. It has resulted in a shortage of working capital. Take an ordinary mixed farm of 150 acres which employs two or three men in addition to the farmer; the capital requirements would be about £30 per acre in land and buildings, &c., and about £14 per acre for stocking and working capital. The total capital requirements would therefore be about £7,000. On a smaller holding, the burden of acquiring the land and buildings is proportionately greater, perhaps amounting to £50 or £60 per acre and then stock, &c., of £18 or £19 per acre.

Unless a greater use is made of long-term credit, it is doubtful whether ownership by the farmer is in most cases a practicable solution. Many so-called owner-occupiers are not completely owners. There is often a large mortgage on the farm; in the case of those who bought after the War during the boom, it is sometimes greater than the present realizable value of the farm. The interest on the mortgage must be paid, and there is no way of securing a reduction, such as exists in the case of rent, which can be brought to arbitration. The farmers themselves are not impressed by the 'magic of ownership' with its heavy financial responsibilities. The landlord-tenant system has in the past been of service to the farmer; he has had protection against injustice or miscontrol by the landlord, and he has had the use of abnormally cheap capital. He could terminate his liabilities for the long-term capital by leaving the farm, whereas, if he is the owner, he may not be able to sell without heavy loss.

> 'The net income is rarely available for the landowner to the extent that the incomes of other investors are, for the owners of agricultural property have behind them a tradition of sharing their possessions with the community in which they live to an extent unknown of any other class.'[1]

The landlord system is weakening. If it goes, it will be because the position of the present landlord has been made economically untenable. It is worth quoting the conclusion of Orwin and Peel in advocating land nationalization:

[1] Orwin, C. S., and Peel, W. R., *The Tenure of Agricultural Land*, Cambridge University Press, 1926.

'Let it be stated over again that no advantage, on balance, is claimed for this system of land purchase [by the State] when contrasted with the system of private ownership which has prevailed so long; it is only put forward to provide an orderly way out of the difficulties which the breakdown of the old system is creating.'[1]

Under a system of public ownership, would the owning authority supply the permanent capital at the same cheap rate as the present land-owners? Would it be prepared to accept sub-market rates and subsidize agriculture to this extent?

Would public ownership stereotype conditions, or would it assist the present economic development in English land-holding in the direction of large farms for certain types of production on the one hand and family farms on the other?

Public ownership is already considerable. County councils have acquired for small holdings over 439,000 acres, of which about 359,000 acres are owned by them. The process of settlement of small farmers is continuous, though it is not as rapid as many people would like it to be. If it is to be hastened more money must be placed in the hands of the existing councils or of an *ad hoc* authority. The action of the councils is local, and they are necessarily concerned with meeting the demands of applicants from their own counties. There are numbers of men brought up in semi-agricultural districts and with some knowledge of rural life—the South Wales miners are a case in point—who might make admirable settlers but who cannot hope to be supplied with land in their own districts. Some central organization for the provision of holdings, working in relation with the county council, has therefore been proposed, and has in fact been provided for by the Agricultural Land (Utilization) Act, 1931. The Act remains on the Statute Book, but no steps have been taken to make its provisions effective.

A central land authority of the kind contemplated under the Act would have wider opportunities for the acquisition of considerable blocks of land for settlement. The procedure followed by the settlements created immediately after the War was that the Government provided the capital for equipment and handed over the management to county authorities. One-third of the initial cost was written off, so that the rent to be

[1] Orwin, C. S., and Peel, W. R., *The Tenure of Agricultural Land*, Cambridge University Press, 1926.

collected was on the basis of two-thirds of the capital outlay. Some Conservative writers contemplate a central small-holdings authority responsible for seeing that in all suitable districts adequate provision is made for satisfying the demands of good applicants.[1] It is also suggested that the central authority, might be, not the Lands Division of the Ministry of Agriculture, but an *ad hoc* body on which municipal and county authorities might be represented.

Apart from the land owned by the county authorities there are large blocks of land in quasi-public ownership. The estates owned by the Ecclesiastical Commissioners, the Crown Lands—the Duchy of Lancaster and the Duchy of Cornwall—and the Department of Agriculture for Scotland, amounting in all to 1,136,000 acres, are all administered by offices which are really public in character.

If public ownership of agricultural land is to be extended, there are certain advantages in the gradual extension of the process, so that the authorities concerned are able to benefit by experience. A sudden change of tenure over large areas at one time would provide administrative and economic problems of enormous difficulty.

The official policy of the Conservative Party does not contemplate public ownership beyond the extension of small holdings. But the exigencies of death duties have provoked proposals associated with the names of the Marquess of Lothian and the Duke of Montrose which have received substantial support in Conservative circles. In his letter to *The Times* (May 1st, 1930) Lord Lothian argued that part of the evil effects of the death duties on landed estates might be met if the State would accept land in payment. Though the Finance Act of 1909 provided that the Inland Revenue Commissioners might accept land in lieu of death duties, a Treasury Minute later ruled that land should only be accepted 'if it could be utilized for some public purpose', which in practice has nullified this provision. The Duke of Montrose offered to pay death duties by surrendering a portion of his estates to the Government, but this was refused.

The advantage of this method of payment would be that the capital invested would not be withdrawn from the land and

[1] Blundell, F. N., *A New Policy for Agriculture*, p. 92, Philip Allan, 1931.

used, as it is at present, for current Government expenditure. Blocks of land of manageable size would fall into the hands of the State, which would gradually acquire the responsibility for an increasing part of the present landed estates. A policy of limited land purchase on the lines of the Wyndham Act in Ireland has been suggested by Mr. F. N. Blundell.[1]

Mr. Lloyd George's Liberal Land Committee, which reported in 1925, advocated the transfer of agricultural land to the State in return for land annuities, and the adoption of a system of land-holding to which they gave the name of 'cultivating tenure', with reasonable security to the tenant practising 'good husbandry'. The immediate authorities for the administration of the land were to be county authorities elected *ad hoc*. The policy adopted by the Liberal Land Conference of February 1926[2] was much more limited, though it proposed the formation of county authorities with wide powers for the acquisition of land.

The Labour agricultural policy contemplates the acquisition of all agricultural land by the State, and its management by elected county authorities, compensation to present owners being made by Land Bonds based on landlords' returns made under Schedule A of the Income Tax; it does not offer the same security of tenure to tenants as was proposed in the Lloyd George scheme. The proposal is that existing agreements would be continued for the time being, but

'we contemplate that County Agricultural Committees will, in suitable cases, cultivate land themselves on a considerable scale.... In some cases it may be found more advantageous to continue the system of tenant farmers or small holdings; in others to establish public utility companies or forms of collective or co-operative farming for cultivation of large tracts of land, in others again for the Committee themselves to cultivate such land as may seem to call for direct cultivation by the Public Authority.'[3]

The last scheme thus embodies proposals for an eventual dislocation of existing farming which would certainly place all farmers in the interim period in a position of uncertainty sufficient to deter them from making the best use of their

[1] Blundell, F. N., *A New Policy for Agriculture*, p. 83, 1931.

[2] *Report of the Liberal Land Conference*, Liberal Publication Department, 1926.

[3] *A Labour Policy for Agriculture*, The Trades Union Congress and the Labour Party, 1926.

holdings. The bureaucratic control of farming proposed in the Labour scheme has obvious disadvantages. Factors such as quickness of decision and power of initiative, which are so essential to farming efficiency on account of the emergence of unexpected uncontrollable circumstances, are not associated with corporate organizations or public authorities; management ability is a variable, immeasurable factor; the balance of each farm is too intricate for absentee control.

So if land nationalization is likely to come, it is possibly better that it should come gradually, either by the payment of death duties with land or by the gradual acquisition of land for settlement schemes, and that it should not be encumbered with disruptive schemes for the direct control of production.

If any large scheme of increased public ownership is carried out, two things seem to be necessary. The first is a survey of the land of Great Britain on a national scale, in order to know what branches of farming are suited to various districts, as regards both production and market conditions. At present there is information for some parts of the country in the surveys carried out by various research institutions, but the work requires to be extended to the whole country. Such a survey is also indispensable to any rational scheme of small holdings.

The second desideratum is that an experiment with small holdings should be made on a really large scale—say a unit of 20,000 acres. The land acquired need not be in one piece in a ring fence, but the more compact the area the better. With a unit of this size it would be possible to have one or more processing factories for the main produce of the farms, and a central office for the necessary account-keeping, for advice, and assistance generally. Such a central office would do for the tenants what the most enlightened landlords did in the past. There need be no undue interference in production —there would be no cause for it in a well-organized scheme— but the small-holder might have the aid of experienced and scientific advice, and the use of pooled machinery and of good breeding stock. The State would learn whether, under favourable conditions, in which there could be real co-operation between the holders, there was a chance of a livelihood for the small-holder without the long hours of work which are

held by some to be an important argument against the extension of the family farm system in this country. On the social side a large community of small-holders should be able to find among themselves sufficient social life.

Closely allied to the ownership of the land is the provision of credit. With the disappearance of the landlord would go one of the farmers' principal creditors. So far as long-term credit is concerned, the measures taken by the State have been reasonably successful. Several statutory companies have been formed since the middle of the last century, such as the General Land Drainage Company (1849), the Scottish Drainage Company (1856), now all absorbed into the Lands Improvement Company which was originally founded in 1853. Authorized improvements include the erection and enlarging of farm buildings, cottages, water-supply, drainage, fencing, lighting, road-making, and so on. It is claimed that the Lands Improvement Company has advanced over £15 millions to farming. The Agricultural Mortgage Corporation was formed in 1929 to provide adequate long-term credit to finance the purchase of land and for the capital equipment of farms; this credit had previously been supplied by the banks, and it is said that in 1926 as much as £26 millions was loaned by the banks upon land securities.[1] This scheme has proved a general success.

Short-term credit provision is not so satisfactory, and suggestions for improvements have been outlined by Mr. Orwin.[2] He proposes the use of the channels to which the farmer has been accustomed in the past, the dealers and the banks. Such a scheme is already working well in connexion with the Midland Marts and has been common in the North for many decades. In principle, the bank is still the lender but works through the dealer or live-stock market as a sort of underwriter. The farmer, purchasing live stock on a credit basis from the dealer or from the market, enters into a contract in regard to the price, the interest rate, and the future disposal of the stock. The same principle, with modification, can be

[1] *Report on Agricultural Credit*, p. 36, Economics Series No. 8, Ministry of Agriculture and Fisheries, 1926.

[2] Orwin, C. S., 'The Question of Short-term Credit', *Country Life*, March 4th, 1933. See also Skilbeck, D., 'A Farmer's Live Stock Market', *Journal of the Royal Agricultural Society*, vol. xciii, 1932.

applied to other types of purchase and sale. The system as outlined does not appear to require State aid or intervention for its development.

Among the other factors affecting efficiency in farming there remain to be considered the suitability of the material with which the farmer works and also his ability as manager. Nothing need perhaps be said of the efficiency of the agricultural worker, since it is probable that if the industry were enabled to pay better wages, and if the prospects of advancement to an independent position were better, this problem, if there is one, would automatically disappear.

The State is already playing a large part in increasing farming efficiency through research and education. The peculiar position of the farmer has made it almost essential for the State to undertake the largest share of research work. There are, of course, centres belonging to various corporations, such as the Imperial Chemical Industries' station at Jealott's Hill, which are doing invaluable work. If the time should ever come when farmers are fully organized, it is possible that the responsibility for financing the research work might devolve upon the industry itself.[1]

Hitherto, when economies have had to be made, one of the first branches to be 'axed' has been the research department. Though unfortunate, this is understandable. Much research work is necessarily of a long-time nature, perhaps even 'academic', and the immediate results are often not directly measurable in money. Income and expenditure must be made to balance, and many a department with no credit entries must go first. But it is a short-sighted view. Public expenditure on research has been cut drastically at a time when every effort should be madc to discover methods of increasing the efficiency of farming.

The field which agricultural research must cover is a vast one. It starts at the consumer's end and extends back to the individual farm. There is to-day a great need for the study of food-consumption habits and consumption trends,

[1] It is interesting to note the legislative steps being taken to develop research work in the rubber and textile trades. It is further evidence of the State giving powers into the hands of organized producers and demanding that they put their own house in order.

consumers' demands, food consumption and utilization, and all the various studies that make up the American science of 'Home Economics'.

Then there is marketing research, including methods and practices of marketing, costs of marketing and distribution, the relation of price and quality, the elasticity of demand and retail prices; costs of processing and manufacturing, the storage of perishable products, preservation of fruits and vegetables, canning, pickling, &c.; the use of by-products such as milk, sugar, casein, utilization of hides, skins, slaughter-house products, and so on; the laying down of standards, grades, and brands, the regulation of packages and containers; methods and costs of transportation, and numerous other questions.

It would take too long to enumerate the production problems that have to be dealt with on the farm and the solution of which must await further research. Amongst the most important are those dealing with soil fertility in relation to different crops, soil microbiology, soil erosion, and the continuation of a general soil survey; drainage, farm machinery, particularly for small-sized farms and live-stock production, artificial crop-drying, farm-building construction, farm refrigeration and storage, machinery for spraying and dusting; the improvement of pastures by the breeding and introduction of suitable grasses and clovers, the possibilities of intensive and rotational grazing, grass-land manuring, the use of grass cakes, grass silage, &c. These are all problems on which only the initial stages of research have been carried out. Animal nutrition, feeding and breeding efficiency, milk-recording, pig-recording, litter-testing, egg-recording, animal diseases; fruit and vegetable growing, breeding of disease-resistant strains, pollination studies, insect diseases, fungi; investigations of migratory birds, injurious birds and predatory animals, cyclical movements in animal life, control of rodents, are some of the problems which call for the united effort of the physicist, chemist, biologist, geneticist, bacteriologist, botanist, zoologist, entomologist, and contingent scientists.

Finally there is an increasing need for economic research. Profit is the ultimate goal of the farmer, and it is the return in pounds, shillings, and pence that is his most pressing concern.

Farm-management research is essential, consisting of the study of the internal financial and technical organization of farms, farm practices, efficiency, and costs, all related to financial results. Cost of production studies are still necessary; they were intended originally to discover the best combination of crops or live stock, but, with a system of interrelated enterprises characteristic of mixed farming, they have admittedly failed so far. However, with increasing specialization they may serve their original purpose, and in any case they are essential, if not so much for determining the cost-of-production figure as for finding out why costs are what they are. Economic surveys and financial accounts, drawing their conclusions from a larger sample than is possible for cost studies, give a representative picture, and by revealing the factors affecting profitability give to the individual farmer efficiency standards with which he may compare his own farm. Again, the study and analysis of new systems of farm organization may suggest improvements and adaptations of existing systems, even if no drastic and wholesale changes are contemplated. There is perhaps no more useful work that could be undertaken than a thorough investigation on these lines.

A national survey of land-utilization is an essential preliminary to any attempt at production control; land tenure, the changes in ownership, the possibilities of small holdings and group settlement, future trends, and the necessary legislation, are fit subjects for immediate research.

There is another type of problem to which little attention has been paid up to the present: production and price-outlook work. One of the most serious difficulties for farming is the adjustment of supply and demand and the occurrence of violent price fluctuations. The publication of market information, estimates of home and foreign crop and live-stock production, demand conditions, and so on, is one of the more obvious methods of correcting the evils of false rumours and fictitious quotations which beset the small producer. The analysis of statistical data may elucidate long-time trends in market requirements, the factors determining the course of prices, possible changes in demands which influence price, and provide advance information for adjustment.

The only known method of securing equilibrium between

demand and supply is through the price mechanism. Yet little is known of the relative importance of the factors determining price in this country, or the effect of price-changes on supply or demand. It is impossible to set out to control price without even an elementary knowledge of what the effects of various measures may be. For example, what effect will a definite reduction in bacon and ham imports have on the price of pigs in this country? What increase in production may be expected as a result of this price-change? Or, to put it another way, what increase in price, assuming present production methods, would be necessary to increase home production by a defined amount? Another example is afforded by the Ottawa Agreements and beef prices: in the first place, they mention freely an interrelationship between the prices of different types of meat, but no statistical measurement of this relationship has been made here; in the second place, what little information is available gives little hope that a reduction of 6 per cent. in meat imports, for that is all that the Agreements[1] effect, will cause an appreciable rise in meat prices. So long as price analysis is lacking, any policy for the control of price must be undertaken in the dark. Price analysis can help both the farmer and the framers of agricultural policy.

'Price forecasts, like weather forecasts, can never be unfailingly accurate, but just as scientific analysis of previous experience has proved to be better than rule-of-thumb anticipations in foretelling weather conditions, so statistical examination of past price movements may provide a more reliable guide to the future and thus be of practical value to those who are willing to apply it.'

There is little fear of all farmers responding simultaneously to a price forecast and thus forestalling it; but if some at least do respond, it will result in a better adjustment of production to demand.

The necessary complement to research is education; the one without the other is useless; new knowledge, the results of research, must be disseminated, tried out, and adapted before the original research reaches fruition. No expense should be spared in increasing and improving the agricultural education of the country, not only in the schools but at later stages.

[1] Attempts have since been made to supplement these reductions.

Demonstrations, lectures, discussion groups, courses, conferences, pamphlets, leaflets, farming papers, reprints, wireless talks, all are useful for the wider spread of information.

The final factor causing inefficiency is the abnormal fluctuations in prices, such as have been experienced in the last twelve or thirteen years. It is impossible to avoid fluctuations in the prices of individual agricultural commodities, for so long as supply or demand varies, prices will vary. But it is not unreasonable to foresee the arrival of the time when greater stability in the general price-level may be expected.

Stabilization of the general price-level is not the only desideratum. If the Government could raise the general price-level, it would thereby take the most effective step within its power to improve the condition of farming in this country, as well as of industry. The question is not one so much of actual interference in farm prices, but of the general financial policy of the country. With rising prices industry would recover, and with it the market for farm products.

Wholesale prices of all commodities[1] in 1932 averaged only 64·5 per cent. of the prices which ruled in the three years 1927–9. During this period costs may have declined, but not equally with prices. The following table shows the actual average prices of different agricultural commodities in 1932 and the same prices adjusted to the 1927–9 wholesale price-level, i.e. giving money the same value in 1932 as it had in 1927–9. A glance at the difference between the actual and corrected prices indicates plainly the reason for dissatisfaction. Would the farmer consider his plight so bad if the 'corrected' prices were ruling to-day? He would be fairly well satisfied with them.

Traditionally, the control of the price-level has not been regarded as one of the functions of the Government. Since it is no longer believed that, in a country on a gold standard, the price-level looks after itself, the Bank of England rather than the Government has been responsible for measures directed towards controlling the price-level. The two weapons it has found effective to stimulate a rise in prices in normal times have been the lowering of the bank rate and the purchase of securities so as to make ample funds available to the

[1] Measured from *The Statist* index of wholesale prices of commodities.

Table XXX

Prices of Various Agricultural Commodities in 1932, and Adjusted to the 1927–9 Level

	*Actual price in 1932**		*'Corrected' price†*	
	s.	*d.*	*s.*	*d.*
Wheat, per cwt.	5	11	9	2
Barley, per cwt.	7	7	11	9
Fat cattle, per live cwt.	40	0	62	0
Fat sheep, per lb.		7¼		11¼
Baconers, per score	9	2	14	3
Porkers, per score	10	4	16	0
Eggs, per dozen	1	3	1	11
Butter, per 12 lb.	13	9	21	3
Cheese, per cwt.	93	6	144	9

* From the *Agricultural Market Report.*
† 1927–9 = 100, 1932 = 64·5.

banks as a basis for an expansion of their loans. At the present time neither of these measures have proved effective.

It has been suggested that once prices have risen approximately to the 1927–9 price-level, the aim of a monetary policy should be a reasonable degree of stabilization.

It may not prove possible to stabilize at the same time the price-level and the exchange rates with other countries. For a change in the conditions of demand or of supply of internationally traded goods in one country would necessitate a change either in relative prices in the two countries or in exchange rates. It should, however, be possible either to stabilize prices and to allow occasional variations in exchange rates, or to stabilize exchange rates and prevent frequent fluctuations in the price-level.

The Macmillan Committee in 1931 recommended the following policy as being beneficial for industry; it would certainly aid agriculture.

> 'Our objective should be, so far as it lies within the power of this country to influence the international price level, first of all to raise prices a long way above the present level and then to maintain them at the level thus reached with as much stability as can be managed.'

'We recommend that this objective be accepted as the guiding aim of the monetary policy of this country. The acceptance of such an objective will represent in itself a great and notable change. For before the War scarcely anyone considered that the price level could or ought to be the care and preoccupation, far less a main objective of policy, on the part of the Bank of England or any other Central Bank.'[1]

It is not unreasonable to claim that the most necessary measure of farm relief is the provision by the State of comparative stability in the value of money.

[1] *Report of the Committee on Finance and Industry*, p. 117, Cmd. 3897, 1931.

CHAPTER XI

CONCLUSION

INTEREST in the fate of agriculture centres for the moment round the schemes proposed under the Marketing Acts. For that reason the question of the rationalization of marketing has received so much attention in this book. Marketing has been the main plank in the Government's programme for the relief of agriculture. Rationalization as laid down in the schemes under the Act provides for producer control of various important branches of the industry and gives power to restrict supply if this be necessary to raise prices. Combined with this is a promise of restriction of imported supplies.

The immediate cause of this insistence on reorganization is found in the acute fall in prices in the last ten years. Low prices appear to be the root of the trouble, and the price system has received the blame. It is the job of price, in the present competitive system, to equate production and consumption, but price fluctuations in recent years have appeared to bear little relation to fluctuations in supply or demand. So the time-honoured laws of supply and demand have come to be regarded by many as being no longer effective.

Changes in the value of money have been among the principal factors in causing price fluctuations, though it must be recognized that these work principally through demand and therefore do not vitiate, or fall outside the scope of, the supply and demand laws. A rise in the value of money and a fall in prices affect agriculture more seriously than many other industries, owing to the slow turn-over of capital, the lag in the movement of production costs, and the slowness of readjustment entailed by the type of organization in agriculture.

The fall in the general price-level is attributed by one school of thought primarily to monetary causes and by another mainly to non-monetary factors. The Macmillan Report concludes that the phenomenon of the world-wide fall in prices is mainly the result of the monetary system failing to surmount a number of obstacles of non-monetary origin.

But whatever the reasons, the fact remains that money and

price have failed to equate supply and demand. There are two possible solutions of this difficulty of bringing production into line with consumption: either to make the price system work again by removing the obstacles to its successful operation and allowing price to regain its old position as adjustor of supply and demand; or to devise some other means of control to supersede price. It is this latter policy of control and planning which characterizes the present reorganization schemes.

Two questions then arise: Who is to have the powers of control? How far must schemes of regulation go in order to secure control of price?

Individual control has marked the economic organization since the start of the industrial revolution; it has been one of the characteristics of the competitive system. Nevertheless complete freedom of control and initiative has not existed. The State has set limitations, to an increasing extent, on individual enterprise, but on the whole the main powers of control have been left in the hands of the producers themselves. Only in a few instances, such as the postal and telegraph services, roadways, and possibly education, has the State assumed complete control. It is evident, too, from recent legislation, that the State is relying upon industries themselves to overcome many of the wastes which the competitive system is now seen to entail: industrial maladjustments, extreme fluctuations, wastefulness in distribution, &c. Combinations of producers have been encouraged, and these organizations have received powers hitherto denied to them, not only in this country but elsewhere.

The old objection to the organization of producers for the control of supplies is fast disappearing. The regulation of an industry by an association of producers may prove to be the right compromise between the extreme individualism of the old *laissez-faire* competitive system and a system of complete State control.

The theory that organization may result in a lessening of price fluctuations depends on the producers' ability to control the flow of supplies. There are, however, definite limitations for agriculture. Its products do not in general possess uniformity in quality; farming does not require heavy

initial capitalization; there is no marked limitation in the raw materials nor in production; and lastly, the demand for most agricultural products, viewed separately, is not inelastic. The problem of organizing agriculture for centralized control is therefore not an easy one.

The Agricultural Marketing Act of 1931 went a fair way to overcome some of the difficulties. It accepted the principle of placing the control of the various branches in the hands of the producers themselves and permitted agriculture to come into line with the general trend of industrial development.

If control is to be left in the hands of the farmers, how far can they exercise it in order to control price? To do this they must be in a position to control the factors which determine price. For purposes of discussion these are three, i.e. the value of money, demand, and supply (the dividing line between the first and second is indistinct, since the first is an aspect of the demand factor).

Fluctuations in the value of money and most of the other demand factors are obviously beyond the control of farmers, whether individually or organized. Changes in demand are of three types—long-time, year-to-year, and seasonal. They are of immense importance to British agriculture. The long-time change in consumption habits from the cheaper to the dearer foods, as standards of living have risen, has meant the change-over of British farming to the types of production for which it is best suited by climatic and other conditions. It has afforded this country the chance of using a naturally partially protected market. Year-to-year changes in demand also have a large influence on the prices of British farm products. These can in many cases be related directly to the purchasing power of the consumers and especially of the wage-earning classes; for example, when trade is good fat-cattle prices rise; they fall when wages are low and unemployment is high.

Variations in supply occur as a result of various factors, and, like demand, some of these are also beyond the control of the farmer, e.g. those due to weather conditions. Furthermore, about one-half to two-thirds of the nation's food supply is imported and beyond the control of the British farmer. Again, even if the Government does control the

imports of commodities for which reorganization schemes are undertaken, there is still a large supply of other imported competing commodities not grown in this country and which are therefore not covered by the Marketing Acts. So of the total factors causing price fluctuations, only a small proportion are within the direct control of farmers.

Experience has shown over and over again that control of market supply in itself is not sufficient to ensure control of price. Control of production is a necessary accompaniment. Most of the supply control schemes throughout the world have omitted production control and allowed price to guide production; they permitted the regulation of supply by price when they set out with the express purpose of controlling price by regulating supply.

A few attempts have been made to restrict production voluntarily, but they have been singularly unsuccessful. No system has yet been devised which can take the place of price in eliminating the inefficient or marginal producer before eliminating the efficient or supra-marginal one. Percentage reductions do not accomplish this, nor do allotments based on previous production. They tend to stereotype production, to sustain the inefficient at the expense of the efficient, and consequently to increase production costs.

Some countries have attempted to control production through control of marketing. It is probable that in this country, where mixed farming predominates and the various interrelated enterprises on the farm present a delicate balance, the allotment of production quotas by commodity marketing boards regardless of the balance of enterprises on each farm would lead to great waste and loss. State control of production also presents insuperable difficulties at the present time. Even if State control were desirable, the lack of knowledge of production conditions throughout the country makes the formulation of schemes for the reorganization of production almost impossible. Furthermore, the human element, management ability, is so important a factor in farming, and is at the same time so variable and immeasurable, that centralized control of agricultural production is hardly practicable or economic.

If the producer is unwilling to submit to control of

production, or if it is not feasible in farming, the only solution is to return to the guidance of production by price—not indeed to the old system, but to a price system from which the most serious defects, such as violent changes in the value of money, have been eliminated, and which has the assistance of more market intelligence and outlook information.

But even if price control offers such limited possibilities there are other reasons for, and methods of, reorganization open to farmers and the State.

It must be emphasized again that the British farmer has not been merely passive in a changing world: reorganization of production to suit economic changes has been going on, year in, year out, all over the country, though to a greater extent in some types of farming than in others. The adaptations to new conditions have been specially marked in the present century. These changes must be slow, because farmers are aware that in farming it takes a long time to eradicate the effects of errors of judgement.

Many people blame the British farmer for slowness in taking up new methods and accuse him of being inefficient. Yet it would be well to recognize first where the blame for inefficiency really falls. The greater part of it lies in the inadequacy and shortage of the permanent equipment of the land; shortage of capital is at the present time one of the severest handicaps to the most efficient use of both land and labour; neither the farmer nor the landlord can be saddled with this charge. Another important factor causing inefficiency is the insecurity resulting from the extreme price fluctuations in recent years, especially in the general level of prices; the farmer is not to blame for these either.

There are, however, ways in which the farmer can achieve greater efficiency. Without exact knowledge of conditions on individual farms it is possible only to point to a few directions in which improvements can be made. The first of these is co-operation in production, the production of more uniform and standardized commodities; this is not a marketing problem, as it has its origin on the farm. Quality production is especially important during a time of falling prices: it is safe to say that there is always a market for first-quality produce. Every effort must be made to cut costs, and if this is insuffi-

cient to turn losses into profit it may be necessary for each farmer to consider a complete overhaul of his system of farming, either in what he produces or in the balance of the different enterprises on his farm.

So far as marketing reorganization is concerned, the farmer's part is less obvious. There are definite limits to what organized farmers can accomplish: they cannot for and by themselves fix prices or guarantee costs of production plus profits; they cannot reduce or eliminate the services demanded by the consumer; and they cannot, to any great extent, eliminate the middleman. The last is especially true in regard to retail distribution: the problem of inefficiency in retailing, in so far as it exists, must be tackled from the consumers' end, by consumers' co-operatives, chain stores, &c.

There does appear to be room for improvement in the collection of agricultural produce and in the elimination of redundant auction markets. Some people recommend the extension of farmer control as far as the dispersing wholesaler, including all the necessary manufacture, but, whether desirable or not, this does not appear to be immediately practicable.

Control of processing and manufacture would give control of the surplus produce which is held to depress market prices unduly. The effect of an excess or shortage of supply on the price of a product depends to a great extent on the elasticity of the demand for it. This difference must be considered in deciding on the policy to be adopted in dealing with a surplus of any one commodity. Only for a few home-produced commodities, with an inelastic demand, can a surplus be kept off the market, sales decreased, and total returns increased thereby.

Organized producers can do much to alleviate the effect of surpluses, by widening the market or evening out the peak periods; the latter, of course, is impossible in the case of certain products for which the demand is intensely seasonal. Organized producers can achieve 'orderly marketing'—the regulating and adjustment of shipments to suit market conditions, supervise the handling of produce, obtain reductions in transport rates, supervise storage, improve quality, and increase demand by advertising. These are the only means at present within the control of the farmer, by which

he may hope to obtain a larger part of the consumer's pound.

There is another way in which farmers, and particularly organized farmers, can eliminate some of the risks of price fluctuations. This is by the greater use of contracts embodying price agreements. At present this method has been confined to milk, sugar beet, potatoes in some parts of the country, certain live stock, and to some fruits and vegetables. It is already extensively used and is capable of expansion. The contract system is not a method of price control: the ordinary factors of supply and demand play their part as usual, but some of the risks of fluctuation are eliminated and others are more evenly distributed.

The State has also a part to play in the reorganization of farming. There are three types of policy which it may follow; they are not mutually exclusive, but the problem is simplified if they are kept distinct. First, there is a policy of temporary relief to tide over a temporary crisis; second, there is a policy of maintaining British agriculture at an artificial level; and third, a policy of reorganization or reconstruction on purely economic lines.

A policy of temporary relief must not lapse into a permanent policy, nor must it aggravate the causes of the depression, stimulate any false development in British farming, or stereotype production methods at a time when science is making such rapid progress.

A policy of permanently subsidizing agriculture at the expense of other industries has often been advanced on the grounds of national defence, health, and stability. The first two arguments do not survive intact from a close investigation. The national stability argument is based on firmer foundations. Many believe that extreme urbanization gives an ill-balanced community. Others claim that the decline in the export trade of this country is permanent, and that henceforth a larger proportion of our food supplies must be produced at home. Others state that a rural population is politically more stable than an urban electorate. Finally, others argue that agriculture can absorb some urban unemployment.

If agriculture and the agricultural population are to be increased successfully for social and political reasons, then

the State must be prepared to raise artificially the returns to farming. Otherwise standards of living will remain low and rural depopulation will continue.

Unfortunately the urban electorate has never been willing over long periods to spend very large sums on subsidizing farming by increasing its cost of living, so that sooner or later British farming must face the third type of policy, economic reconstruction. This provides the surest foundation on which to build a sound industry, and should therefore form the greater part of the State's agricultural policy.

Some factors causing inefficiency in production—inadequate permanent equipment, shortage of capital, and fluctuations in the value of money—can be remedied by State action.

The decline of the landlord-tenant system and the inability of the landlord or the tenant to provide permanent and working capital may eventually lead to more public ownership of land. The proposal to form groups of estates in order to obtain economies in management is no antidote to the deeper-seated ills which are besetting the system. Occupying ownership presents similar difficulties by creating an even greater shortage of working capital. The extension of public ownership of land may become inevitable, not because this system has advantages over the old one when that régime was effective, but because it may be politically impossible under present conditions to resuscitate the former efficiency of the landlord-tenant system. If public ownership has to come, it would be preferable for it to come gradually, say by the payment of death duties in land and by an increase in land settlement schemes. The disruptive schemes for production control which are a complementary part of the Labour land nationalization proposals might prove disastrous.

Closely allied to the problem of the permanent equipment of the land is the question of credit provision. So far as long-term credit is concerned the State has directly and indirectly made ample provision; but as regards short-term credit there is room for a new scheme, making use of the channels to which the farmer has been accustomed in the past.

Increased activity in research and education must also play a large part in any national policy for the reorganization of farming on economic lines. At the present time much of it

has to be undertaken by the State owing to the lack of organization amongst the farmers. It must not be forgotten, however, that much of the agricultural progress in the past is due to empirical research by the farmer himself.

The other factor which lies within the control of the State and which causes inefficiency is the change in prices due to fluctuations in the value of money. The principal necessity at the present time is a rise in prices in general and then a reasonable degree of stabilization at some point at which the levels of returns and costs are in closer proximity. Rapid advances in the knowledge of the working of the price system justify the hope that the breakdown of the monetary system can be repaired and future disruptions avoided.

Though economic reconstruction must be the chief aim of Britain's agricultural policy, there is the possibility of using the urban dweller's willingness to 'hold the ring' for a limited time.

The Government's main proposals for agricultural relief centre on marketing reorganization and the raising of prices by restricting supplies. But marketing reorganization in itself does not remedy the causes of the depression and must be purely tentative, as there are no data to indicate that in this country centralized marketing would necessarily be cheaper than the present system.

Improved marketing should mean grading and standardizing produce as well as collective bargaining. It should not involve official limitation of production and statutory price-fixing.

A supply restriction policy might be justified for any one industry if the prices of its products were below those of other commodities owing to excessive supply. But prices of British farm products have in general been above those of other wholesale prices for the last three years. The case for a general policy of supply restriction is therefore not so strong as many believe.

If supply is in excess of effective demand the better remedy must surely be to raise demand to the supply level and thus at least maintain present standards of living. Restriction of supply may result in higher prices, but it may also result in a further restriction of purchasing power; unemployment will

be increased through restricted production. To quote Professor Pigou once again—'People want prices to rise in order that more people may be employed; they do not want less people to be employed in order that prices may rise.' A general policy of restriction might prove suicidal.

Import prohibitions, tariffs, voluntary and compulsory quotas, import monopolies, exchange depreciation, are some of the methods of restricting imported supplies. For a short-term measure, there is little doubt that quotas are the most effective; as a long-term measure they are extremely dangerous, whether they are being used for price raising or price stabilization. There are numerous difficulties in the working of quotas which will become obvious after they have been tried for longer than six months. Import boards would be preferable, and tariffs preferable to both.

The argument that a quota necessarily increases the purchasing power of the foreign producer for the products of British industry is untenable. Allocation of national quotas as opposed to global quotas is economically unsound; it is impossible to eliminate the marginal producer under a system in which price competition is ruled out. Further, there is insufficient knowledge regarding consumers' demands in this country to warrant the claim that quota restriction will result in an increase in the price of the home product. Quotas are unwieldy weapons for taking into account different grades or types of commodity. Quotas will 'canalize' trade to a degree which may become exceedingly dangerous in the future. Errors of judgement in the fixation of quotas will cause much more trade dislocation than errors in the fixation of tariffs. There are certain commodities, particularly those for which the home supply is of greater importance in price determination than the imported, for which quotas would only exaggerate price fluctuations rather than decrease them as the quota advocates claim. Quotas stifle that competition which is the best safeguard for the consumer; admittedly tariffs restrict competition, but to a less severe extent.

Though committed to a restriction policy, the Government have not yet made much use of their weapons. The Import Duties Act, 1932, omitted the bulk of agricultural products from its scope. The Ottawa Agreements placed a tariff on

certain foreign products, but Empire supplies have remained tax free and continue to compete with home produce. The undertaking to observe the Agreements for periods of years has presented the Government with an ample excuse for not using their restriction policy to the full extent. Yet it is Dominion, not foreign, supplies which have wrecked the mutton, the lamb, and the dairy produce markets. The Ottawa Agreements must have made it plain to British farmers that they cannot expect much relief from politicians dependent upon the urban voter. More recent trade agreements bear out this belief.

An examination of agricultural prices in April 1933 as compared with April 1932 indicates a further decline of 10 per cent. Only pigs and fat sheep had increased in price, and there is justification for asserting that in neither case was the rise due to the restriction policy.[1]

The danger of restricting home production is more serious. The main reasons for the urban voter's subsidizing agriculture are that the industry should grow more food to correct the adverse balance of trade and that it should employ more people. The deliberate restriction of output is likely in the long run to antagonize the urban voter. Furthermore, there is no guarantee that restricted output for many commodities will result in an increase of price sufficient to raise total returns to the British farmer. For those commodities with an elastic demand, such as beef, mutton, lamb, butter, eggs, a very large reduction in output is required to raise the price even slightly. The increased price is not likely to be sufficient to offset the decreased sales. A policy to restrict the output of the more important British commodities, if attempted, would be difficult to justify.

A control policy based on insufficient knowledge of its possible effects may well result in two things—agitation by the towns, on the lines of the Corn Law agitation, against any consideration of the farmer's interests; and the introduction, with

[1] The rise in the price of hops has been quoted as evidence of the success and beneficial effect of the Hops Marketing scheme. As a matter of fact, before the scheme was ever adopted, well-informed people knew and foretold a rise in price, because stocks were almost exhausted, output was being curtailed as the result of previous low prices, the 1932–3 crop promised to be of good quality, and the demand for hops was strong.

the advent of a Socialist government, of a complete system of monopoly boards and the complete control of home production.

It is well to remember that the crisis of the last few years has not been confined to farming in this country. Depression has pervaded agriculture throughout the world, in most countries, more severely than here; stocks of agricultural products have accumulated in unprecedented quantities. Yet that is not all: urban industry has suffered to the same extent; factories are working at half their capacity and some 30 million men are working only part-time or are unemployed; industrial stocks would have accumulated to an even greater extent than in agriculture if industry had not been able to close down. The farm, which is at the same time a home, cannot use this solution and so has been unduly hit.

Clearly production has outstripped effective demand or purchasing power, yet actual demand is far from satisfied: even for food alone, millions of people are barely on the subsistence level, millions of people are under-housed, under-clothed, and under-nourished; according to economists, human desires, which form demand, can never be satisfied. The problem is not so much one of production as of distribution. Somehow or other international trade has to be set moving again; countries have once more to produce the goods and services for which they are most suited and exchange them for the goods and services which other countries can produce most economically. In principle, every deviation from this ideal results in a smaller return for the human effort and a consequent general lowering of standards of living.

Debtor countries must be allowed to pay their debts or they must default; creditor countries must allow the payment of debts or cancel them; payment must be made eventually in goods and services; money is essentially a medium of exchange, and a country cannot go on indefinitely paying in gold.

There are, of course, readjustments in the relationships between countries, and these have to be recognized and not thwarted; for example the United States before the War was a debtor nation and owed Europe about £40 millions annually in interest charges which were paid in agricultural goods. Since 1914, they have loaned Europe so much on government and private account that they are now a creditor country and

are owed about £100 millions a year in interest charges. High tariff protection has prevented the payment of the debt in goods, and payment in gold is no longer physically possible. The United States failed to realize their position as a creditor nation, and have thereby contributed in no small way to the break-down of the monetary system and the maladjustment of supply and demand.

During the post-War period, this country recognized, in spite of the obstacles placed in its way, the responsibilities of a creditor country by not raising insuperable obstacles against the payment of obligations in goods. But obviously it is a position which is untenable if not adopted universally; the flow of gold to the United States and the consequent fall in price levels in other parts of the world, the necessity for debtor countries to sell more and more products to pay a more or less fixed debt charge, the closing of almost all markets behind tariff barriers and trade restrictions, made this country the sole market; goods flowed in at any price obtainable and the balance of trade was seriously upset. Other countries showed no signs of removing some of the obstacles to world trade which they had imposed and allowing the disequilibrium to right itself. Some check had to be imposed and a moderate protectionist policy was adopted at the end of 1931. With the partial restriction on the only free market where debts could be paid, the position became more critical and there are now signs of a return towards normality; precipitating and accelerating a crisis is a recognized countermove to certain diseases. This country's restriction policy may be regarded in the same way so long as it does not overdo the treatment and make the critical condition chronic. Our aim should be to get freer trade. Until that is achieved, the greatest use cannot be made of man's effort in the production of wealth. That is the background in which this country's agricultural problem is set.

'The Abandonment of Trade Restrictions' was one of twelve measures taken to remedy trade depressions in China in the twelfth century B.C., over 3,000 years ago, whilst in the first century A.D. a Chinese writer made the following additional note: 'Although there were no customs duties in the

Chow period, inspections and restrictions were in force on both imports and exports between states. These would be abandoned in times of depression to facilitate free transportation and quick exchange.'[1]

Nationalism and restraints of trade, once they have taken root, are difficult to dislodge, and their eradication must be slow. If, then, the policy of this country must continue to be moderately protectionist for some years, agriculture should obtain the same degree of security as other industries. But the amount of help to be given to farming is, as history has always shown, strictly limited, and therefore it is especially necessary that it should be disbursed in the most economical manner. Whether the policy undertaken is a long-term one or merely a temporary measure, it must not stimulate a false or uneconomic development in British farming.

The policy laid down in *Land and Life* of planning, by giving direct help to the live-stock industry as well as to fruit and vegetables by means of tariffs, still appears to be the most certain to attain the desired aims of a national policy. Tariffs are safer than quotas as a long-term measure, and their handicap as a short-term measure in not guaranteeing an immediate rise in prices could be overcome by the distribution of the tariff revenue in the form of a subsidy or bounty.

The main advantages of such a policy can be briefly summarized as follows:

It would benefit all, instead of only a few, parts of the country. Live stock are ubiquitous: even in the Eastern Counties, whence came the demand for a wheat policy, the sale of live-stock products accounts for the bulk of the farm income.

It would provide continuity in policy, because it would include those products which are economically suited to the conditions in this country. Continuity is essential for a long-term policy.

It would speed up the change-over to those branches which British farmers have been for years developing in response to economic factors.

It would take advantage of the nearby market which

[1] Translation from the *Chow Li*, by Dr. Kiang-hu of McGill University, May 1933.

demands high-valued products of good quality and in fresh condition. It turns to account that market which is naturally protected.

It would increase the demand for the products of arable farming. It is probable that more than three-quarters of these, including green crops, are already used for the production of live stock. Cow-keepers and potato-growers would continue to grow wheat because they need the straw; turnips and swedes would be grown in many areas if sheep became more profitable; oats and rotation grasses would increase if the market for milk and beef were improved; barley would continue to be grown if pigs were more often 'money', and less often 'muck'; poultry-keeping stimulates grain production. It has been proved in Denmark, where 91 per cent. of the land is under the plough and the bulk of the farm income depends on the sale of live-stock products, that the plough is almost essential to intensive live-stock farming.

This policy would increase employment and maintain people on the land. The re-establishment of wheat-growing for sale will not increase agricultural employment, whereas the expansion of the live-stock industry might well call for half a million more workers on the land in addition to the secondary processing and distributing services which would be required.

Live stock are essential to the small farmer and the smallholder. If it is socially desirable that this class of holding should be increased, the return for the holder's labour must be able to face competitive comparison with the return in other occupations. Our system of farming should be intensive, with live-stock, fruit, and vegetable production as a basis. A policy for the expansion of live stock, fruit, and vegetables would therefore be suited to a small-holding or family farm policy and would not kill the economic large-scale farm.

It would fulfil the three requirements of a continuous national agricultural policy, greater production, greater efficiency, and greater rural employment.

The country is invited to make great changes in the system of farming and in the methods by which the produce is marketed. There is room for improvement in both. But is a revolution involving restriction of supply and a great change

in the external trade of the country justified under the circumstances?

There is a fundamental difficulty to be faced. It is impossible to foretell the future, but at most periods of history there are indications from which deductions with a reasonable degree of probability may be made as to coming events. To-day the future is obscure, and the World Monetary and Economic Conference has not thrown any very strong beam of light into the obscurity.

Before any sharp turn in agricultural policy is carried to completion, especially a policy involving restriction of food supplies, it does seem necessary to consider what economic conditions are likely to predominate in the near future. The fundamental question is whether Great Britain is to remain, as in the past, a great exporting country; if international trade revives, she surely will: and an important element in her industrial success will be, as it has been in the past, an abundant supply of good and cheap food. Revival of trade would mean immediately an increased demand both for cheap essentials and also for the more expensive semi-luxury foods, as well as for the perishable products which have been the great assets of this country.

Of course there is a possible alternative, but it is one which, so far, no responsible statesman has been prepared to face. It may be that economic nationalism has not yet reached its limit, that every nation will strive to live to itself except for those raw materials and foods for which it does not possess the necessary resources, either at home or overseas. International trade would then be restricted to the necessary exchange of goods to meet these limited wants; the general standard of living in each country would be strictly bounded by its natural resources. That is a picture which very few people are willing to contemplate, though many have advocated policies leading in that direction without due consideration of their consequences. If the standard of living is to be lowered by the cessation of all but the most indispensable international movement of goods and services, then a complete reorganization of British agriculture involving huge sacrifices is inevitable. Whether such a revolution could be carried out without another kind of revolution is doubtful.

Even if the future be not so black as that—and presumably the British colonies would not become self-sufficient within a reasonable period—even if international trade remains at its present low level, it might be considered necessary to insist on drastic changes in agriculture.

But the changes demanded in that event would be quite different. The essential would be the fullest exploitation of every available acre in the most economical way. Instead of stereotyping production as would be the case if the schemes under the Marketing Acts are carried to their logical conclusion, with a virtual monopoly to existing farmers, there would have to be a very different policy. Large production on existing agricultural land, and a policy of reclamation of waste land and reconditioning of sub-marginal land, such as is now being carried out by the Italian Government, would be required. Expenditure on the necessary scale would almost certainly carry with it a claim not for producer-control but for State-control.

Most people envisage neither of these alternatives, but a middle course, in which restrictions on international trade will gradually be reduced and the nations return to a reasonable comity, with a sense of the mutual services which they can render.

With any substantial revival of trade, may not the present artificial methods of bolstering up agriculture with the aid of quantitative and variable restrictions on imports be rejected as soon as their full operation irks industry, and as soon as their effect on the international relations of this country has had time to develop?

Does not a middle course of events demand a middle course in agricultural protection, namely, reasonable customs duties on meat, dairy, and poultry products, as well as on fruit and vegetables, for the production of which British agriculture is especially fitted? A tariff would permit preferential rates to Empire produce. Possibly it is not yet too late to secure a revision of the Ottawa and other agreements which have led us into the present bewildering maze of controls which restrict and yet do not protect. If it is not possible to scrap the quota machinery after it has been established, then a mitigation of its difficulties will almost certainly be sought in the substitution of import boards.

Lastly, it cannot be too often repeated that agriculture has always prospered when the general price-level has been good, that is, in periods of general prosperity. Efforts made by the State to ensure general industrial prosperity are of more importance to the farmer in the long run than any special measures of agricultural protection. How much the general monetary policy of the Government can do to bring about that national prosperity is a matter of acute controversy. Where the financial experts differ so widely it is not for the layman to lay down the express remedial means to be employed. But finance certainly can accomplish something, possibly more than all the most elaborate systems of marketing organization can do.

And, apart from the purely economic question of whether we must grow as much food as possible at home because we are going to be so poor that we cannot buy it abroad, or whether we shall continue to buy abroad in order that we may sell—on the sound principle that one-way trade is impossible for any length of time—there are some questions of a human and social order on which a decision should be reached.

Is agriculture just an industry like another, to be made the object of 'big business', like cotton or coal or steel? Or is it one of the foundations of national life, the natural life providing certain satisfactions which seem to be permanently desirable for the race?

In England the tendency in the last fifty years has been to have regard to the 'economic' aspects, while maintaining at the same time a sentimental enthusiasm for farm life as such. That is not the case in continental countries, where the protection of agriculture is a first consideration. It is interesting to find the modern historian of capitalism, Werner Sombart, concluding[1] that the fate of individualist economy depends essentially on the fate of the peasant system.

'The peasant-farmer of the future will not be the same person as he is to-day. Modernization and rationalization will bring progress. At one end of the development there stands the American "farmer" with his telephone, his Ford, his banking-account—and his wife in silk stockings. The farmer of the type of Andreas Hofer or Jörn Uhl is—happily or

[1] Werner Sombart, *Das Wirtschaftsleben im Zeitalter des Hochcapitalismus*, vol. ii, p. 10.

unhappily—gone for good. But farming will always remain a branch of economic life in which there is room for a man's soul to expand and there is something within that soul which will always resist complete domination by either capitalism or socialism.

'Profit will never be the sole object of farming. Love of it for its own sake, attachment to the soil, the desire for independence, family tradition, and other quite irrational causes combine to balance the purely economic side of the question. Where this does obtain control it will be on account of the necessity and not merely for the sake of profit-making.

'It should also be remembered that farming is carried on for its own sake in a sense that an industrial undertaking or factory is not.

'Even a capitalist farmer will not be able to deprive farming entirely of its soul. So many factors must always remain which defy complete control. In making contracts, for instance, the result of the harvest cannot be exactly forecast, and indeed very little agricultural work can be turned out to order and according to pattern. It must be individualized. The farmer is constantly being obliged to take decisions in circumstances over which he has no control.'

Agriculture may not be the greatest of our industries; but it is fundamental. That is why the present preoccupation of the State with agriculture is a good sign.

But policy should be well considered; it should be such that there is no likelihood of early reversal. In the last twenty years British Governments and Parliaments have zigzagged from one expensive experiment to another. There has never been a thought-out national economic policy, consecutively pursued, as there has been in countries so different as New Zealand, Germany, France, and Denmark.

Lastly the prosperity of British agriculture cannot be divorced from world conditions.

'The rescue of agriculture from its present plight depends primarily on a steady increase of demand for its products, i.e. on a continuous rise in the standard of living. This, in its turn with all that it implies, such as the reabsorption in productive occupations of the millions of unemployed industrial workers, is dependent upon an improvement in world political, financial, and economic conditions. . . . Of the modern world it is true to say that it is becoming increasingly difficult for one State to harm the interests of another without injuring its own economy. Only large-scale action in which all the most important nations will collaborate can hope to overcome world-wide difficulties. From the political point of view, it is no exaggeration to assert that the success of the Disarmament Conference has a direct bearing on the prospects of agricul-

turists the world over. On the economic side the prosperity of world agriculture is dependent upon the solution of a number of problems, partly financial, partly monetary, partly related to commercial policies. Here again solutions depend on common action between nations.[1]

Ill-timed and unsound planning intended to achieve the readjustment of supply and demand, rigid trade restrictions and agreements covering periods of years, and the false development in industries at home may only serve to maintain the barriers against a return to world peace and better conditions. The policy which affords the most hopeful outlook for the future of British farming is one of economic reconstruction based on the fullest recognition of its dependency on industrial prosperity and, in turn, on the recovery of world trade.

[1] *World Agriculture: An International Survey*, Oxford University Press, 1932.

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